



Edd Clark & Associates, Inc.

Environmental Consultants

June 30, 2006

**Job No.: 0302,001.97**

Emil Shokohi  
% Mansor Shokohi  
P.O. Box 866  
Albion, CA 95410

### **Groundwater Monitoring Report - March 2006 Event**

**Former Albion Shell  
3300 Highway 1 North  
Albion, California**

Dear Mr. Shokohi:

This report presents the results of Edd Clark & Associates, Inc.'s (EC&A's) March 2006 groundwater monitoring activities completed in the vicinity of the former Albion Shell Station, 3300 Highway 1 North (site) in Albion, California (Figure 1). Groundwater monitoring has been conducted quarterly at the site and near-site vicinity since October 1999 at the request of the North Coast Regional Water Quality Control Board (NCRWQCB) because of a release of fuel hydrocarbons (FHCs) to soil and groundwater from underground storage tanks (USTs) for gasoline formerly located at the site. Groundwater monitoring for the March 2006 event was conducted in accordance with the NCRWQCB's March 20, 2006 *MRP No. R1-2006-0032*. The March 2006 monitoring event is the sixth monitoring event conducted at the site since activation of the ozone microsparging systems on November 1, 2004. A copy of this report will be sent to the NCRWQCB and to the Mendocino County Environmental Health Department (MCEHD) for their review.

#### **Completed Scope of Work**

Work performed for the March 2006 sampling event included:

- Measuring depth to water (DTW) in monitoring wells MW-1, MW-2 and MW-5 through MW-18;
- Calculating the groundwater-flow direction and gradient;
- Collecting groundwater samples for chemical analyses from MW-1, MW-2, MW-5 through MW-18, the water-supply well servicing the site (DW-1) and surface-water samples from the duck pond (DP), the southwest drainage area (SW-1) and the northwest drainage area (SW-4) (Figure 2);
- Recording ozone microsparging groundwater parameters from all the monitoring wells;
- Evaluating the results of the calculations and sample analyses; and
- Preparing this report.

#### **Monitoring Wells**

##### Water-level Measurements

On March 30, 2006, EC&A personnel measured groundwater levels in MW-1, MW-2 and MW-5 through MW-18. DTW below the top of the well casing (TOC) in each well was measured to the nearest 0.01 foot (ft) with a water-level meter. The meter was cleaned and rinsed prior to taking

measurements in each well. Groundwater-level measurements were recorded after the well caps were removed and groundwater in the wells was allowed to equilibrate for a minimum of 15 minutes. DTW ranged from +0.13 ft in MW-15 (artesian) to 8.35 ft in MW-8, and the groundwater-flow direction and gradient in the vicinity of the former USTs were calculated to be S53°W and 0.056 ft/ft, respectively (Figure 3 and Table 1). Water-level data from MW-13, MW-14 and MW-17 were not used to calculate the groundwater-flow direction and gradient because MW-13 and MW-14 are deep wells that are screened within bedrock, and the TOC on MW-17 was lowered due to recent paving activities and has not been re-surveyed.

Groundwater Field Logs containing the DTW measurements are in Appendix A. DTW data will be electronically submitted to the State GeoTracker Internet Database.

#### Monitoring Well Groundwater Sampling Procedures

On March 30, 2006, EC&A personnel collected groundwater samples from MW-1, MW-2 and MW-5 through MW-18. Prior to collecting samples, all the monitoring wells except MW-5 and MW-12 were purged with a submersible pump. MW-5 and MW-12 were hand bailed. Free-floating product was not present in the purged water; however, an odor of FHCs was detected in water purged from MW-15, MW-16 and MW-18. Groundwater pH, temperature, electric conductivity, dissolved oxygen (DO) and oxidation-reduction potential (ORP) were measured during purging of the wells at intervals of approximately one well-casing volume. Groundwater samples were collected from the wells after groundwater parameters stabilized and/or either the water level returned to a minimum of 80% of the initially recorded water level or sufficient groundwater re-entered the well. Purge volumes and groundwater-quality parameters are recorded on the Field Logs in Appendix A.

Groundwater samples were collected in new single-sample, disposable bailers fitted with disposable bottom-emptying devices to minimize degassing of samples to be analyzed for volatile chemical constituents. Samples were transferred from the bailers to properly labeled, laboratory-supplied sterile sample containers, placed on ice and transported under chain-of-custody control to McCampbell Analytical, Inc. (MAI) for chemical analysis. MAI is a state-certified laboratory in Pacheco, California.

#### Monitoring Well Groundwater Sample Analysis and Analytical Results

All the groundwater samples collected from the monitoring wells were analyzed for methyl tert-butyl ether (MTBE) and other gasoline oxygenates by Analytical Method SW8260B. Groundwater samples collected from MW-2, MW-6, MW-10, MW-13, MW-15, MW-16 and MW-18 were also analyzed for total petroleum hydrocarbons (TPH) as gasoline (g) and benzene, toluene, ethylbenzene and xylenes (BTEX) by Analytical Methods SW8015Cm/8021B.

TPHg and benzene were detected in groundwater samples collected from MW-2, MW-6, MW-10, MW-15, MW-16 and MW-18. TPHg concentrations ranged from 120 micrograms per liter ( $\mu\text{g/l}$ ) in MW-10 to 94,000  $\mu\text{g/l}$  in MW-15, and benzene concentrations ranged from 18  $\mu\text{g/l}$  (MW-10) to 16,000  $\mu\text{g/l}$  (MW-15). Toluene, ethylbenzene and/or xylenes were detected in MW-2, MW-6,

MW-10, MW-15, MW-16 and MW-18; the maximum concentrations were 9600 µg/l toluene, 1500 µg/l ethylbenzene and 6600 µg/l xylenes in MW-15.

MTBE was detected in groundwater samples from MW-2, MW-5, MW-6, MW-7, MW-10 and MW-13 through MW-18 at concentrations ranging from 0.86 µg/l (MW-5) to 40,000 µg/l (MW-16). T-butyl alcohol (TBA) was detected in the sample from MW-13 at 18 µg/l.

Analytical results for FHCs and fuel oxygenates are presented in Table 2. Figures 4, 5 and 6 are isoconcentration maps of TPHg, benzene and MTBE, respectively, in groundwater. A complete copy of the analytical laboratory report is in Appendix B. The results of the analyses of the samples will be electronically submitted to the State GeoTracker Internet Database.

### **Water-supply Wells and Surface Water**

On March 30, 2006, EC&A personnel collected groundwater samples from onsite water-supply well DW-1, and surface-water samples from the duck pond (DP), the northwest drainage (SW-4) and the southwest drainage (SW-1). Sample DW-1 was inadvertently labeled as DW for this event.

#### Water-supply Wells and Surface-water Sampling Procedures

Sample DW (DW-1) was collected from the closest tap to the well head after the tap ran for approximately 15 minutes. Surface-water samples DP, SW-1 and SW-4 were collected by lowering sterile, laboratory-supplied sample containers directly into the water, avoiding contact with soil or other materials. Sample DP was collected from the northwest corner of the duck pond. Sample SW-1 was collected from the Duck Pond drainage 30 ft south of MW-10 and sample SW-4 was collected approximately 10 ft north of MW-14 in an area of natural drainage.

#### Water-supply Wells and Surface-water Sample Analysis and Analytical Results

Samples DW-1, DP, SW-1 and SW-4 were analyzed for MTBE and other gasoline oxygenates by Analytical Method SW8260B. Sample DW-1 was also analyzed for TPHg and BTEX by Analytical Methods SW8015Cm/8021B.

The only analyte detected in the water-supply well and surface-water samples collected for this event was MTBE at 0.93 µg/l in DP and 7.6 µg/l in SW-1. Table 3 presents analytical results for samples collected from water-supply wells and surface waters. A complete copy of the analytical laboratory report is in Appendix B. The results of the analyses of the samples will be electronically submitted to the State GeoTracker Internet Database.

### **Decontamination Procedures**

Sampling equipment was cleaned onsite with a low-phosphorous, soap-and-water solution and double rinsed with tap water. Decontamination water and monitoring well purge water were placed in properly labeled, DOT 17H 55-gallon drums for temporary, onsite storage.

**Ozone Microsparging Groundwater Parameters**

As required by the NCRWQCB in the *MRP No. R1-2006-0032*, groundwater samples from MW-2, MW-6 and MW-15 through MW-18 were also analyzed for the inorganic anions bromate and bromide (by Analytical Method E300.1) and the dissolved metals hexachrome (by Analytical Method E218.6), molybdenum, selenium and vanadium (by Analytical Method E200.8). Field measurements for DO, ORP, temperature and pH were collected from these wells to monitor the effectiveness of the ozone microsparging system. Measurements were collected after at least two well-casing volumes were purged from each well. Although not required by the NCRWQCB, field measurements for DO, ORP, temperature and pH were measured in all monitoring wells sampled for this event.

Bromate and hexachrome were not detected. Bromide was detected in the samples collected from MW-2, MW-6 and MW-15 through MW-18 at concentrations ranging from 0.61 milligrams per liter (mg/l) in MW-6 to 1.9 mg/l in MW-15. Molybdenum was detected in MW-2 and MW-15 through MW-18 at concentrations ranging from 0.53 µg/l (MW-15) to 2.6 µg/l (MW-17). Selenium was detected in MW-15, MW-16 and MW-17 at 0.95 µg/l, 1.6 µg/l and 0.52 µg/l, respectively. Vanadium was detected in MW-17 at 0.61 µg/l. None of the dissolved metal concentrations detected to date exceed their respective Water Quality Objectives (WQO; Table 4).

Analytical results for inorganic anions and dissolved metals are presented in Table 4. A complete copy of the analytical laboratory report is in Appendix B. The results of the analyses of the samples will be electronically submitted to the State GeoTracker Internet Database.

The locations of the sparge wells and trench system are shown on Figure 7. DO, ORP, temperature and pH field measurements are provided in Table 5. Ozone system Operation and Maintenance (O&M) comments are presented in Table 6.

**DISCUSSION****Groundwater Flow/Gradient**

Groundwater-flow direction at the site continues to be to the southwest, ranging from S47°W to S78°W, with a gradient ranging from approximately 0.036 ft/ft to 0.1 ft/ft. Comparison of the potentiometric-surface elevations measured in paired wells MW-7/MW-14 and MW-10/MW-13 shows that a downward hydraulic gradient is generally present at these locations.

- The head differences between deep well MW-13 and shallow-water-table well MW-10 were as follows: -0.08 ft on May 23, 2002; -0.04 ft on August 27, 2002; -0.06 ft on November 27, 2002; -0.07 ft on February 11, 2003; -0.07 ft on May 28, 2003; -0.05 ft on August 26, 2003; -0.03 ft on November 25, 2003; -0.15 ft on February 26, 2004; -0.86 ft on May 27, 2004; -0.07 ft on August 26-27, 2004; +0.1 ft on March 30, 2005; -0.07 ft on June 22, 2005; 0.00 ft on September 30, 2005; -0.94 ft on December 29, 2005; and -0.95 on March 30, 2006.

- The head difference between deep well MW-14 and shallow-water-table well MW-7 were as follows: -5.80 ft on June 14, 2002; -3.81 ft on August 27, 2002; -4.08 ft on November 27, 2002; -4.67 ft on February 11, 2003; -4.20 ft on May 28, 2003; -3.81 ft on August 26, 2003; -3.77 ft on November 25, 2003; -3.58 ft on February 26, 2004; -3.7 ft on May 27, 2004; -2.98 ft on August 26-27, 2004; -3.85 ft on March 30, 2005; -3.16 ft on June 22, 2005; -3.76 ft on September 30, 2005; -4.82 on December 29, 2005; and -4.35 on March 30, 2006.

### **Groundwater Quality**

The lateral extent of the TPHg, benzene and MTBE plumes in groundwater are indicated on Figures 4, 5 and 6, respectively. These figures show that the FHC plume in groundwater forms two lobes: one extending toward the west from the location of the former USTs and pump island (northwest plume), and one extending southwest from the duck pond (southwest plume). The southwest plume is the largest of the two plumes; overall, the greatest FHC concentrations have been detected in the northwest plume. Groundwater quality in the northwest plume is monitored by wells MW-1, MW-2, MW-5, MW-7, MW-9 and MW-14 through MW-17. Groundwater quality in the southwest plume is monitored by wells MW-6, MW-8, MW-10, MW-11, MW-12, MW-13 and MW-18.

### Monitoring Well Groundwater Samples

In the existing monitoring wells, elevated TPHg, BTEX and/or MTBE concentrations have been detected in MW-2, MW-6, MW-7, MW-10 and MW-15 through MW-18. The maximum TPHg, benzene and MTBE concentrations detected to date in these wells are 98,000 µg/l (MW-15, December 2005), 17,000 µg/l (MW-15, September and December 2005) and 63,000 µg/l (MW-16, September 2005). Historically, the highest concentrations of TPHg, benzene and MTBE were detected in destroyed monitoring well MW-3 at 130,000 µg/l (January 2000), 38,000 µg/l (May 2000) and 690,000 µg/l (May 2000), respectively.

To date, non-detectable or minor concentrations of FHCs have been reported in MW-1, MW-5, MW-8, MW-9, MW-11, and MW-12. Non-detectable or minor concentrations of TPHg and/or BTEX components, but relatively high concentrations of MTBE, have been detected in wells MW-7, MW-10, MW-13, MW-14 and MW-17.

TBA was detected in destroyed well MW-3 at 50,000 µg/l in January 2000. In the existing monitoring wells, TBA has been detected in MW-2, MW-6, MW-10, MW-13 and MW-15 through MW-18 at a maximum concentration of 16,000 µg/l (MW-16, March 2005). For the March 2006 event, TBA was only detected in MW-13 (18 µg/l). However, the detection limit for TBA for the March 2006 sampling event ranged from ND<5.0 µg/l to ND<10,000 µg/l.

### Shallow and Deep Paired Wells

In samples from paired shallow well MW-10 and deep well MW-13 from May 2002 to March 2006, the MTBE concentration has been lower in MW-13. MTBE concentrations in MW-13 typically are about an order of magnitude lower than the concentrations in MW-10. MW-10 and MW-13 are sampled on a semiannual basis.

In samples from the paired shallow well MW-7 and deep well MW-14, from November 2002 to March 2006, the MTBE concentration has been lower in the shallow well (MW-7). The MTBE concentration in shallow well MW-7 has declined from 2400 µg/l in December 2000 to ND in August 2004 through September 2005 to 19 µg/l in March 2006. In deep well MW-14, the MTBE concentration has declined from 460 µg/l in May and August 2003 to 43 µg/l in March 2006. MW-7 and MW-14 are sampled on a semiannual basis.

#### MTBE

Historically, isoconcentration maps of the FHC plume have indicated that the MTBE portion of the plume within both lobes had migrated the farthest from the source of the release. The maximum extent of the MTBE plume in the southwest lobe is in the vicinity of the MW-10/MW-13 well pair; MTBE concentrations in these wells fluctuate between monitoring events.

Comparison of MTBE concentrations in the November 2002 through March 2006 sampling events shows that the down-gradient extent of the northwest lobe has retreated from near MW-9 in November 2002 and February 2003, to a short distance west of MW-7, which was ND for the three consecutive events prior to March 2006. In March 2006, MTBE was detected at 19 µg/l in MW-7. Previously, MTBE concentrations in MW-7 had been as high as 2400 µg/l (December 2000). Residual concentrations of MTBE remain in groundwater in shallow bedrock at the location of MW-14 (43 µg/l in March 2006).

#### Water-well and Surface-water Samples

To date, FHCs have not been detected in water samples collected from water-supply well DW-1 servicing the site, the well pond (WP-1) next to DW-1, water-supply wells LHW-1/LHW-2 servicing the Ledford House Restaurant nor the Ledford House pond.

MTBE has been detected in water samples collected from the duck pond. Generally, the duck pond has been sampled quarterly since September 1999. Historically, MTBE detections in the duck pond have ranged from 0.93 µg/l (March 2006) to 420 µg/l (May 2000). Additionally, relatively low concentrations of TPHg and BTEX components were occasionally detected in the duck pond. Following the August 2003 over-excavation of a portion of the duck pond and the October 2003 installation of a High Density Polyethylene (HDPE) liner in the duck pond, MTBE has been detected only once (0.93 µg/l, March 2006), and other FHC concentrations have not been detected. The trace detection of MTBE in the duck pond in March 2006 is most likely due to unusually high seasonal groundwater elevations during this event.

MTBE and other FHCs have not been detected in surface water samples collected from the northwest drainage (sample locations SW-3 and SW-4). Sample location SW-3 has not been sampled since February 2003. Sample location SW-4 (Figures 2, 4, 5 and 6) is located in the drainage area just inside the apparent western extent of the northwest lobe of the MTBE groundwater plume.

MTBE has been detected in surface water samples collected from the southwest drainage (sample locations SW-1 and SW-2). Sample location SW-2 has not been sampled since February 2003. Sample location SW-1 (Figures 2, 4, 5 and 6) is located in the drainage about 80 ft to the northeast from the apparent southwestern limit of the southwest lobe of the MTBE groundwater plume. MTBE at concentrations up to 62 µg/l (January 2002) have been detected in SW-1. In March 2006, MTBE was detected at 7.6 µg/l in SW-1. Review of DTW measurements in MW-10 (60 ft northeast of SW-1) and MTBE concentrations in SW-1 show that concentrations increase when the water-table rises, and decrease when the water-table drops.

### **Ozone Microsparging Remediation Evaluation**

Overall, there has been an increase in FHC concentrations in groundwater following startup of the ozone system. This probably represents mobilization of FHCs previously adsorbed to soil below the water table as a result of the injection of ozone and oxygen to groundwater. Data from the March 2006 event shows that concentrations are now either declining or stabilizing.

#### **Remediation Trench RT1**

Comparison of pre-ozone microsparging (August 2004 sampling event) TPHg, benzene and MTBE concentrations with those from the March 2006 sampling event show that in the area of RT1 (northwest plume), these concentrations in MW-2 (down-gradient from RT1) have decreased since August 2004. TPHg, benzene and MTBE concentrations increased significantly in MW-15 (cross-gradient from RT1 and down-gradient from T1SP-8) and in MW-16, which is up-gradient from RT1 and down-gradient from the ozone system adjacent to the east side of the former service station building in the location of the former USTs and dispenser island. However, concentrations of all three analytes decreased between December 2005 and March 2006 in MW-15 and MW-16.

#### **Remediation Trench RT2**

In the area of RT2 (southwest plume), comparison of November 2004 and March 2006 TPHg, benzene and MTBE concentrations in MW-6 (down-gradient from RT2), show that they have decreased. Although TPHg and MTBE increased significantly after the ozone system was activated, the March 2006 event revealed a significant decrease in these analytes since December 2005. In MW-18 (up-gradient from RT2 and down gradient from the duck pond), TPHg, benzene and MTBE concentrations have decreased significantly in comparison to the August 2004 pre-ozone results.

#### **Former UST Field and Dispenser Island System**

MTBE concentrations in MW-17, which was installed in the location of the former dispenser island within the area over-excavated in December 2000, have decreased from the pre-ozone microsparging concentration of 250 µg/l (August 2004) to 1.6 µg/l in March 2006. TPHg and BTEX have not been detected in this well and are no longer analyzed for in this well.

#### **Inorganic Anions and Dissolved Metals**

Comparison of the inorganic anions and dissolved metals analytical results from the August 2004 pre-ozone microsparging sampling event with those from subsequent sampling events show that, to date, ozone injection has not significantly mobilized these analytes in groundwater (Table 4).

**Dissolved Oxygen**

In general, DO concentrations are moderately higher than those measured in the previous monitoring event. To date, the highest DO concentrations were measured in the un-impacted wells (MW-7, MW-8, MW-9, MW-11, MW-12 and MW-17) and the two deep wells (MW-13 and MW-14).

**Recommendations**

Groundwater monitoring should continue to be performed at the site in accordance with *MRP No. R1-2006-0032*. The Ledford House water-supply wells (LHW-1/LHW-2) have been removed from the sampling program. The ozone microsparging systems should continue to be inspected on a monthly basis and during sampling events.

**Destruction of MW-1, MW-8 and MW-12**

As reported in EC&A's report of the September 2005 sampling event, the owners of the neighboring property have requested that the NCRWQCB consider the destruction of MW-8 and MW-12. In the January 26, 2006 report, EC&A recommended collecting groundwater samples from MW-8 and MW-12 for at least one more sampling event because of concerns about the stability of the perimeter of the southwestern lobe of the MTBE plume. Samples were collected from these wells in March 2006 at seasonally high water table levels when the migration of MTBE in groundwater is expected to be at its maximum. The March 2006 event confirmed the stability of the southwestern lobe of the MTBE plume; MTBE was not detected in MW-8 or MW-12. In addition to MW-8 and MW-12, MW-1, which is located in the northwest plume, should also be destroyed because no analytes of concern have been detected in samples from this well since December 2000, when 1.4 µg/l toluene and 1.9 µg/l xylenes were detected. MW-1, MW-8 and MW-12 should not be destroyed until the ground surface is dry enough to minimize any adverse impact to the ground surface from the drill rig.

**Schedule**

The next groundwater monitoring event is a quarterly event and is scheduled for early July 2006. Groundwater samples will be collected from monitoring wells MW-2, MW-6, MW-9, MW-11, MW-15, MW-16, MW-17, MW-18, site water-supply well DW-1, surface water sample locations SW-1 and SW-4, and the duck pond (DP).

Samples collected from MW-9, MW-11, MW-17, the duck pond (DP) and surface-water locations SW-1 and SW-4 will be analyzed for MTBE and the other fuel oxygenates by Analytical Method SW8260B. Samples collected from monitoring wells MW-2, MW-6, MW-15, MW-16, and MW-18 and water-supply well DW-1 will be analyzed for TPHg/BTEX by Analytical Methods SW8015Cm/8021B and for MTBE and other gasoline oxygenates by Analytical Method SW8260B.

Groundwater samples from wells MW-2, MW-6 and MW-15 through MW-18 will be analyzed for bromide, bromate, hexachrome, vanadium, selenium and molybdenum by Analytical Methods E300.1/E218.6/E200.8. Field measurements for DO, ORP, temperature and pH will also be taken in these wells.

**Limitations**

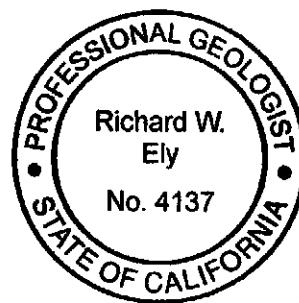
The conclusions presented in this report are professional opinions based on the data presented, including data generated by others. Whereas EC&A does not guarantee the accuracy of information supplied by third parties, we reserve the right to use this information in formulating our professional opinions. They are intended only for the indicated purpose and project site. Conclusions and recommendations presented herein apply to site conditions existing at the time of our study. Changes in the conditions of the site property can occur with time because of natural processes or the works of man on the site or adjacent properties. Changes in applicable standards can also occur as the result of legislation or from the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

Thank you for allowing EC&A to provide continued environmental consulting services for you. Please call John Calomiris, EC&A project manager, if you have any questions.

Sincerely,

Etta Jon VandenBosch  
Environmental Scientist

Richard Ely, PG #4137  
Senior Geologist



- Attachments:
- Figure 1 - Site Location Map
  - Figure 2 - Site Plan
  - Figure 3 - Groundwater Elevation Map, 30 March 2006
  - Figure 4 - Isoconcentration Map of TPHg in Groundwater, 30 March 2006
  - Figure 5 - Isoconcentration Map of Benzene in Groundwater, 30 March 2006
  - Figure 6 - Isoconcentration Map of MTBE in Groundwater, 30 March 2006
  - Figure 7 - Remediation Trench, Sparge Point, and Recent Monitoring Well Locations
  
  - Table 1 - Groundwater Elevation Data
  - Table 2 - Analytical Results - Groundwater Samples from Monitoring Wells:  
Fuel Hydrocarbons, Oxygenates and Lead Scavengers
  - Table 3 - Analytical Results - Groundwater Samples from Water-supply Wells,  
Test Wells and Surface Water
  - Table 4 - Analytical Results - Groundwater Samples from Monitoring Wells:  
Inorganic Anions and Dissolved Metals
  - Table 5 - Monitoring Well Groundwater Results for Dissolved Oxygen,  
Oxidation Reduction Potential, Temperature and pH
  - Table 6 - Ozone System Operations and Maintenance Log

June 30, 2006

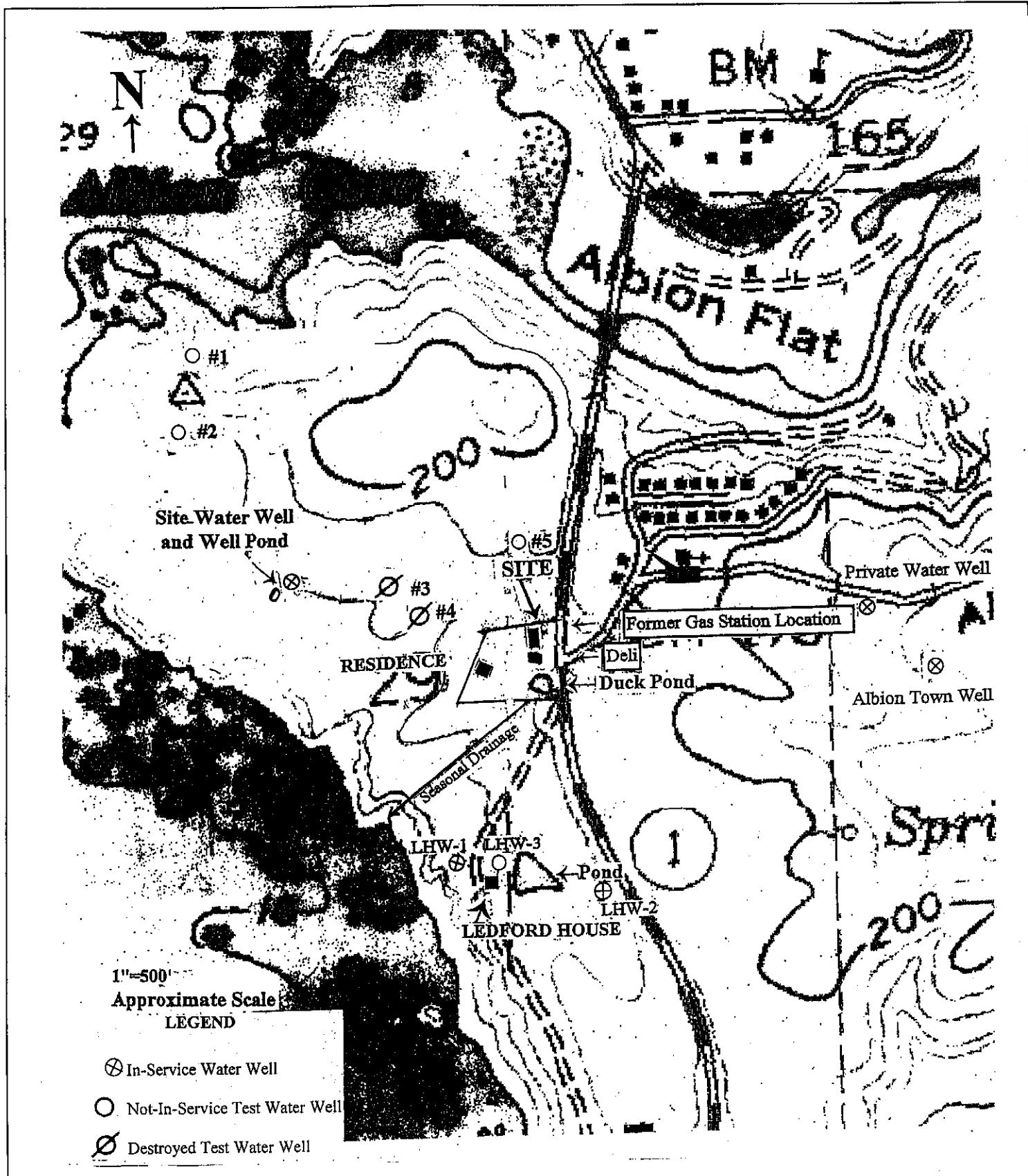
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Edd Clark & Associates, Inc.

Appendix A - Groundwater Field Logs  
Appendix B - Analytical Laboratory Report

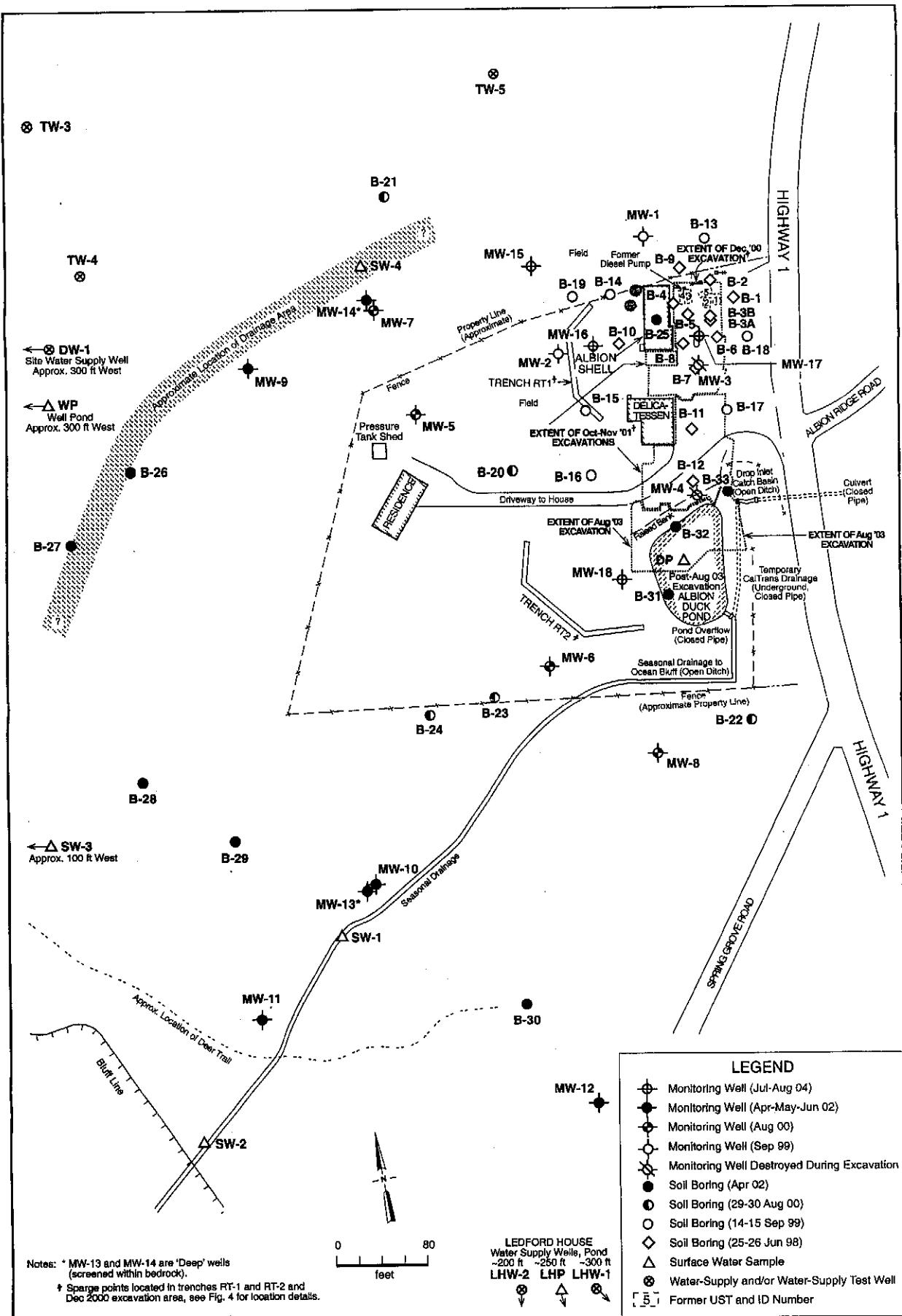
cc: Mr. Craig Hunt, North Coast Regional Water Quality Control Board  
Mr. George Hynek, Mendocino County Environmental Health Department  
Mr. Paul Hoffey, Erler & Kalinowski, Inc.  
Bruce and Carol Smith

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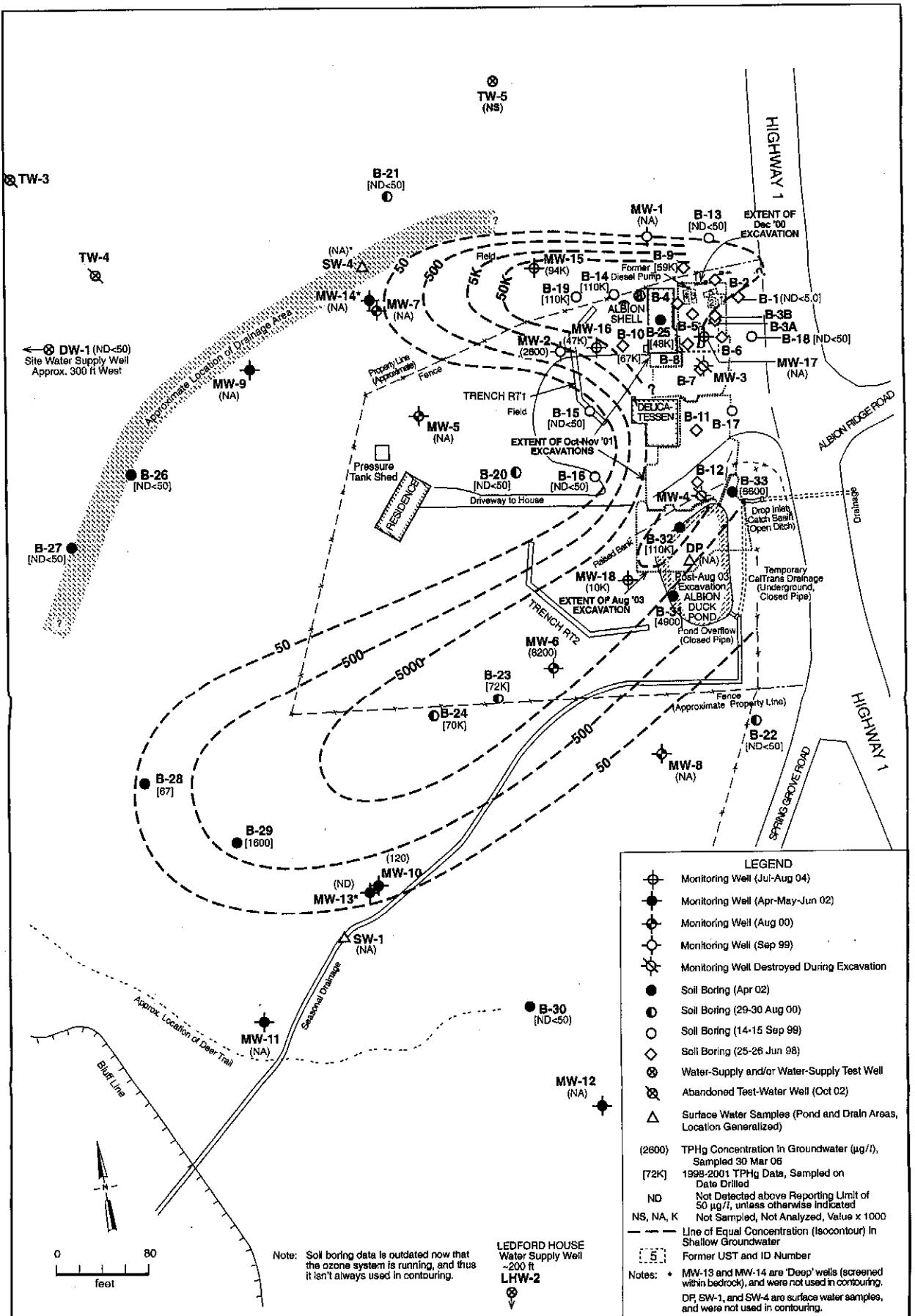


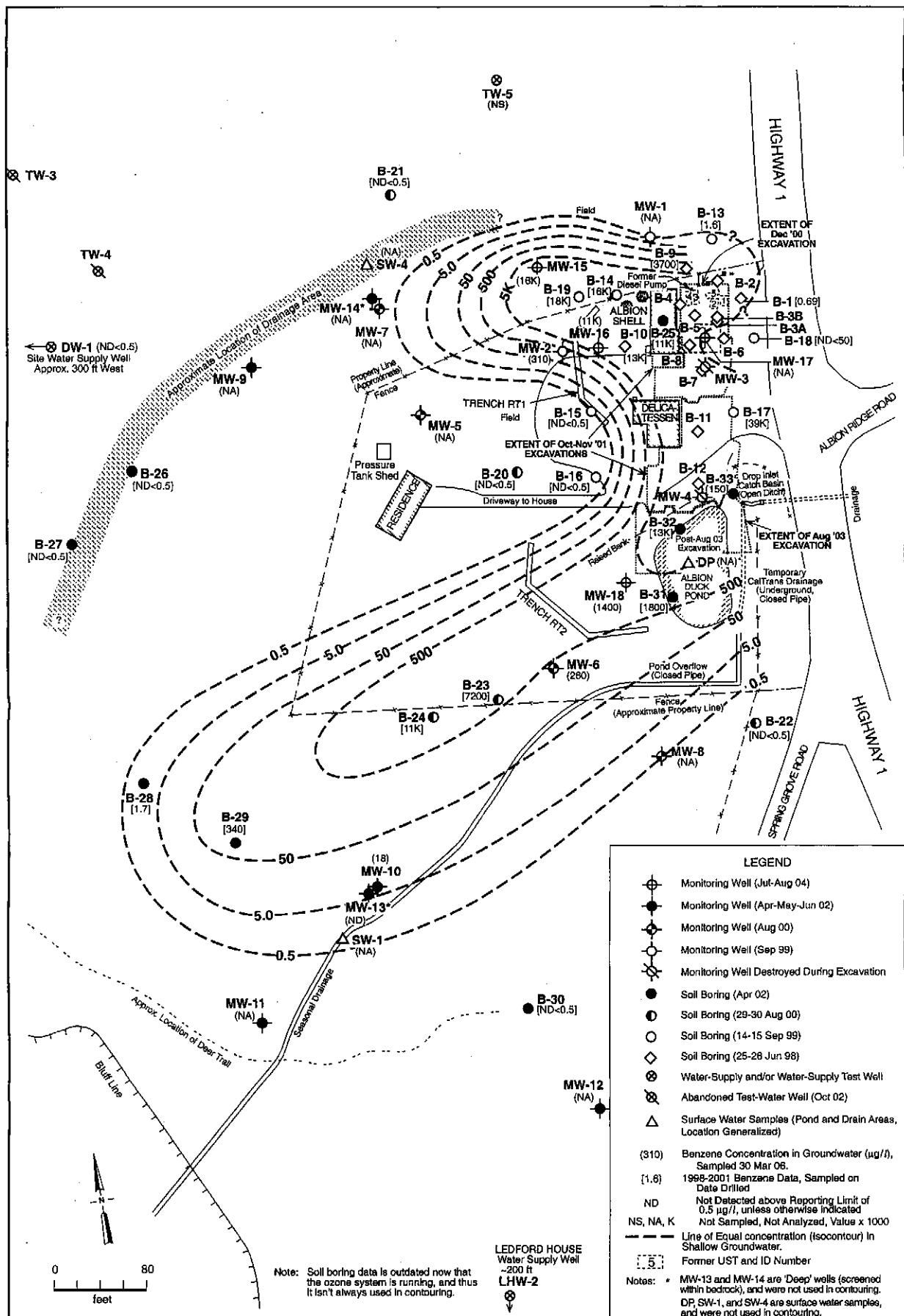
**EDD CLARK & ASSOCIATES, INC.**  
ENVIRONMENTAL CONSULTANTS

**Site Location Map**  
Former Albion Shell  
3300 N. Highway 1  
Albion, California









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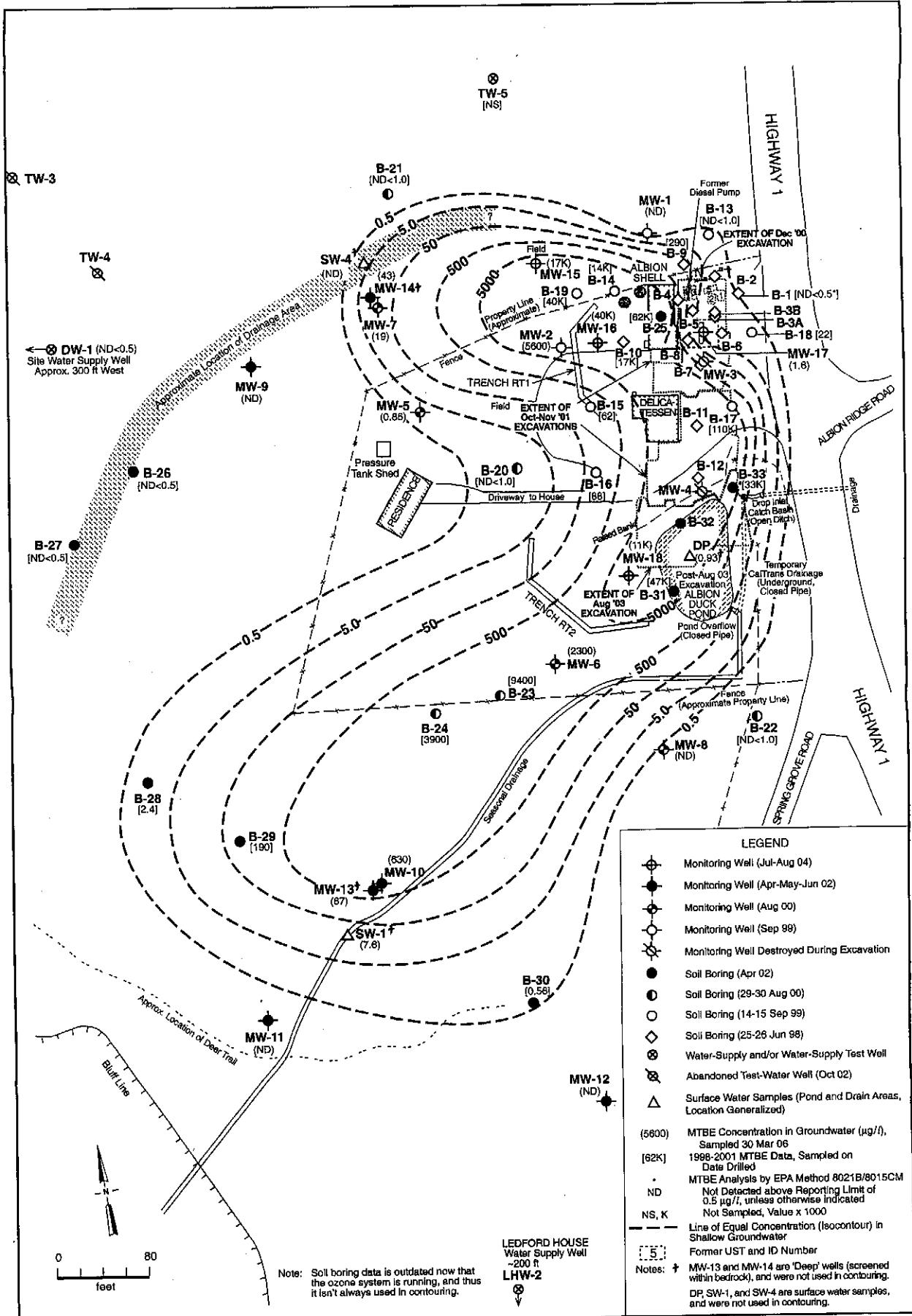
## ISOCONCENTRATION MAP of BENZENE in GROUNDWATER, 30 March 2006

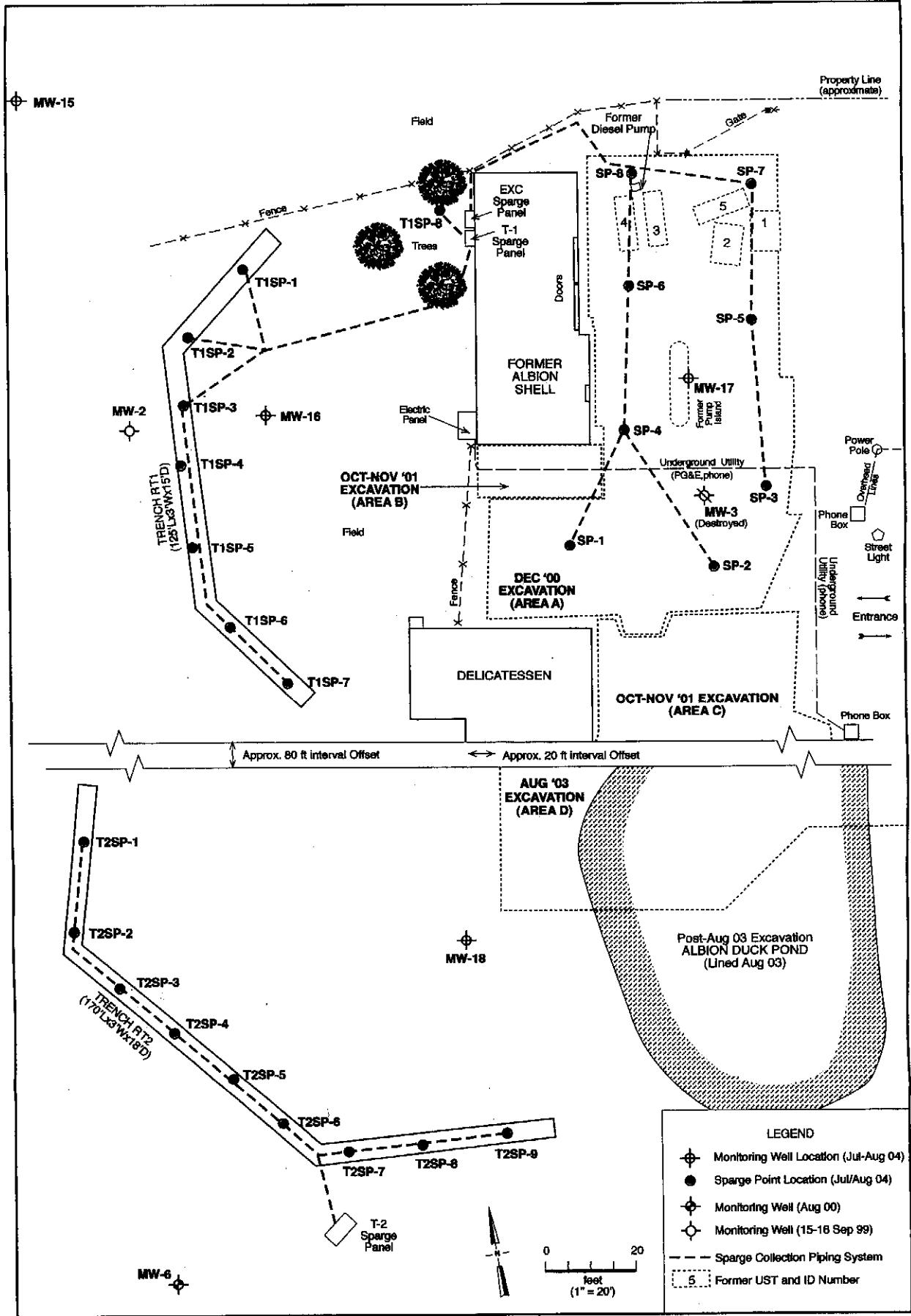
Former Albion Shell  
3300 N. Highway 1  
Albion, California

## FIGURE

Alton, California

TRACE	JOB NUMBER	0302,001.97	REVIEWED BY	EC&A, E.J. VandenBosch	DATE	February 2002	REVISED DATE	June 2006	SHEET NO.	1 of 1
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EDD CLARK & ASSOCIATES, INC.  
ENVIRONMENTAL CONSULTANTS

REMEDIAL TRENCH, SPARGE POINT, and  
RECENT MONITORING WELL LOCATIONS

JOB NUMBER	0302.001.97	REVIEWED BY	EC&A, John Calomiris	DATE	February 2002	REVISED DATE	January 2005	SHEET NO.
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FIGURE 7

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

**Page 1 of 12**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
10/11/99	MW-1	4'-10'	159.35	11.30	148.05
	MW-2	5'-15'	149.89	9.89	140.00
	MW-3	4'-14'	156.10	7.09	149.01
	MW-4	4'-14'	149.16	7.00	142.16
Gradient = S77°W, 0.08 ft/ft					
01/27/00	MW-1	4'-10'	159.35	7.95	151.40
	MW-2	5'-15'	149.89	6.04	143.85
	MW-3	4'-14'	156.10	3.10	153.00
	MW-4	4'-14'	149.16	3.78	145.38
Gradient = S75°W, 0.09 ft/ft					
05/25/00	MW-1	4'-10'	159.35	3.44	155.91
	MW-2	5'-15'	149.89	6.65	143.24
	MW-3	4'-14'	156.10	3.93	152.17
	MW-4	4'-14'	149.16	4.80	144.36
Gradient = S57°W, 0.10 ft/ft					
09/13/00	MW-1	4'-10'	159.35	10.30	149.05
	MW-2	5'-15'	149.89	8.74	141.15
	MW-3	4'-14'	156.10	6.46	149.64
	MW-4	4'-14'	149.16	6.60	142.56
	MW-5	5'-15'	146.09	8.03	138.06
	MW-6	5'-15'	142.19	11.32	130.87
	MW-7	5'-15'	139.59	8.58	131.01
	MW-8	5'-15'	145.69	17.21	128.48
Gradient = S71°W, 0.068 ft/ft					
12/06-07/00	MW-1	4'-10'	159.35	9.71	149.64
	MW-2	5'-15'	149.89	9.12	140.77
	MW-3	4'-14'	156.10	5.79	150.31
	MW-4	4'-14'	149.16	4.88	144.28

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

**Page 2 of 12**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
12/06-07/00 continued	MW-5	5'-15'	146.09	9.28	136.81
	MW-6	5'-15'	142.19	9.35	132.84
	MW-7	5'-15'	139.59	7.51	132.08
	MW-8	5'-15'	145.69	17.59	128.10
Gradient = S76°W, 0.061 ft/ft					
04/16/01	MW-1	4'-10'	159.35	6.25	153.10
	MW-2	5'-15'	149.89	5.53	144.36
	MW-3 *	---	---	---	---
	MW-4	4'-14'	149.16	5.10	144.06
	MW-5	5'-15'	146.09	10.17	135.92
	MW-6	5'-15'	142.19	7.84	134.35
	MW-7	5'-15'	139.59	5.06	134.53
	MW-8	5'-15'	145.69	11.84	133.85
Gradient = S57°W, 0.063 ft/ft					
07/17/01	MW-1	4'-10'	159.35	9.22	150.13
	MW-2	5'-15'	149.89	9.04	140.85
	MW-3 *	---	---	---	---
	MW-4	4'-14'	149.16	5.56	143.60
	MW-5	5'-15'	146.09	9.81	136.28
	MW-6	5'-15'	142.19	10.06	132.13
	MW-7	5'-15'	139.59	7.58	132.01
	MW-8	5'-15'	145.69	15.42	130.27
Gradient = S66°W, 0.052 ft/ft					
10/30/01	MW-1	4'-10'	159.35	12.81	146.54
	MW-2	5'-15'	149.89	10.76	139.13
	MW-4 **	---	---	6.60*	142.56*
	MW-5	5'-15'	146.09	10.43	135.66
	MW-6	5'-15'	142.19	11.88	130.31

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

**Page 3 of 12**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
10/30/01 continued	MW-7	5'-15'	139.59	10.07	129.52
	MW-8	5'-15'	145.69	Dry	(<128)
Gradient = S69°W, 0.070 ft/ft					
01/30/02	MW-1	4'-10'	159.35	4.39	154.96
	MW-2	5'-15'	149.89	3.78	146.11
	MW-5	5'-15'	146.09	6.32	139.77
	MW-6	5'-15'	142.19	6.21	135.98
	MW-7	5'-15'	139.59	4.23	135.36
	MW-8	5'-15'	145.69	10.96	134.73
Gradient = S47°W, 0.09 ft/ft					
05/23/02	MW-1	4'-10'	161.80	6.53	155.27
	MW-2	5'-15'	152.34	6.88	145.46
	MW-5	5'-15'	148.54	10.25	138.29
	MW-6	5'-15'	144.64	8.25	136.39
	MW-7	5'-15'	142.10	6.04	136.06
	MW-8	5'-15'	148.14	13.65	134.49
	MW-9	5'-20'	136.42	6.71	129.71
	MW-10	5'-15'	127.13	5.98	121.15
	MW-11	4'-9'	115.71	6.36	109.35
	MW-12	5'-20'	136.36	9.19	127.17
	MW-13	19'-24'	126.71	5.64	121.07
Gradient = S66°W, 0.07 ft/ft					
06/14/02	MW-7	5'-15'	142.10	7.19	134.91
	MW-14	30'-34.5'	141.67	12.56	129.11
08/27/02	MW-1	4'-10'	161.80	10.81	150.99
	MW-2	5'-15'	152.34	9.91	142.43
	MW-5	5'-15'	148.54	9.57	138.97
	MW-6	5'-15'	144.64	10.98	133.66
	MW-7	5'-15'	142.10	9.75	132.35

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
08/27/02 continued	MW-8	5'-15'	148.14	16.64	131.50
	MW-9	5'-20'	136.42	9.39	127.03
	MW-10	5'-15'	127.13	8.53	118.60
	MW-11	4'-9'	115.71	9.48	106.23
	MW-12	5'-20'	136.36	13.26	123.10
	MW-13	19'-24'	126.71	8.15	118.56
	MW-14	30'-34.5'	141.67	13.13	128.54
Gradient = S75°W, 0.06 ft/ft					
11/27/02	MW-1	4'-10'	161.80	13.29	148.51
	MW-2	5'-15'	152.34	10.15	142.19
	MW-5	5'-15'	148.54	12.63	135.91
	MW-6	5'-15'	144.64	8.89	135.75
	MW-7	5'-15'	142.10	10.33	131.77
	MW-8	5'-15'	148.14	17.70	130.44
	MW-9	5'-20'	136.42	10.96	125.46
	MW-10	5'-15'	127.13	7.82	119.31
	MW-11	4'-9'	115.71	9.62	106.09
	MW-12	5'-20'	136.36	14.67	121.69
	MW-13	19'-24'	126.71	7.46	119.25
	MW-14	30'-34.5'	141.67	13.98	127.69
Gradient = S72°W, 0.05 ft/ft					
02/11/03	MW-1	4'-10'	161.80	5.11	156.69
	MW-2	5'-15'	152.34	3.85	148.49
	MW-5	5'-15'	148.54	10.36	138.18
	MW-6	5'-15'	144.64	6.17	138.47
	MW-7	5'-15'	142.10	4.47	137.63
	MW-8	5'-15'	148.14	11.45	136.69
	MW-9	5'-20'	136.42	4.61	131.81
	MW-10	5'-15'	127.13	5.30	121.83

**Table 1. Groundwater Elevation Data**

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Former Albion Shell, 3300 N. Highway 1, Albion, California

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
02/11/03 continued	MW-11	4'-9'	115.71	5.37	110.34
	MW-12	5'-20'	136.36	6.75	129.61
	MW-13	19'-24'	126.71	4.95	121.76
	MW-14	30'-34.5'	141.67	8.71	132.96
Gradient = S74°W, 0.071 ft/ft					
05/28/03	MW-1	4'-10'	161.80	5.41	156.39
	MW-2	5'-15'	152.34	4.83	147.51
	MW-5	5'-15'	148.54	10.60	137.94
	MW-6	5'-15'	144.64	7.43	137.21
	MW-7	5'-15'	142.10	5.07	137.03
	MW-8	5'-15'	148.14	12.27	135.87
	MW-9	5'-20'	136.42	4.71	131.71
	MW-10	5'-15'	127.13	5.73	121.40
	MW-11	4'-9'	115.71	6.11	109.60
	MW-12	5'-20'	136.36	7.44	128.92
	MW-13	19'-24'	126.71	5.38	121.33
	MW-14	30'-34.5'	141.67	8.84	132.83
Gradient = S78°W, 0.075 ft/ft					
08/26/03	MW-1	4'-10'	161.80	8.56	153.24
	MW-2	5'-15'	152.34	8.22	144.12
	MW-5	5'-15'	148.54	10.54	138.00
	MW-6	5'-15'	144.64	10.91	133.73
	MW-7	5'-15'	142.10	8.26	133.84
	MW-8	5'-15'	148.14	16.07	132.07
	MW-9	5'-20'	136.42	7.83	128.59
	MW-10	5'-15'	127.13	8.18	118.95
	MW-11	4'-9'	115.71	9.08	106.63
	MW-12	5'-20'	136.36	12.43	123.93

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
08/26/03 continued	MW-13	19'-24'	126.71	7.81	118.90
	MW-14	30'-34.5'	141.67	11.64	130.03
Gradient = S65°W, 0.068 ft/ft					
11/25/03	MW-1	4'-10'	161.80	12.13	149.67
	MW-2	5'-15'	152.34	9.71	142.63
	MW-5	5'-15'	148.54	9.19	139.35
	MW-6	5'-15'	144.64	11.65	132.99
	MW-7	5'-15'	142.10	9.51	132.59
	MW-8	5'-15'	148.14	17.60	130.54
	MW-9	5'-20'	136.42	9.98	126.44
	MW-10	5'-15'	127.13	9.95	117.18
	MW-11	4'-9'	115.71	11.09	104.62
	MW-12	5'-20'	136.36	15.02	121.34
	MW-13	19'-24'	126.71	9.56	117.15
	MW-14	30'-34.5'	141.67	12.85	128.82
Gradient = S68°W, 0.054 ft/ft					
02/26/04	MW-1	4'-10'	161.80	3.32	158.48
	MW-2	5'-15'	152.34	1.71	150.63
	MW-5	5'-15'	148.54	4.87	143.67
	MW-6	5'-15'	144.64	5.01	139.63
	MW-7	5'-15'	142.10	3.85	138.25
	MW-8	5'-15'	148.14	5.70	142.44
	MW-9	5'-20'	136.42	2.78	133.64
	MW-10	5'-15'	127.13	4.93	122.20
	MW-11	4'-9'	115.71	4.68	111.03
	MW-12	5'-20'	136.36	5.40	130.96
	MW-13	19'-24'	126.71	4.36	122.35
	MW-14	30'-34.5'	141.67	7.00	134.67
Gradient = S68°W, 0.072 ft/ft					

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
05/27/04	MW-1	4'-10'	161.80	6.81	154.99
	MW-2	5'-15'	152.34	6.81	145.53
	MW-5	5'-15'	148.54	11.19	137.35
	MW-6	5'-15'	144.64	9.62	135.02
	MW-7	5'-15'	142.10	6.82	135.28
	MW-8	5'-15'	148.14	NM	--
	MW-9	5'-20'	136.42	5.91	130.51
	MW-10	5'-15'	127.13	6.80	120.33
	MW-11	4'-9'	115.71	6.85	108.86
	MW-12	5'-20'	136.36	9.68	126.68
	MW-13	19'-24'	126.71	5.52	121.19
	MW-14	30'-34.5'	141.67	10.09	131.58
Gradient = S70°W, 0.067 ft/ft					
08/26-27/04	MW-1	4'-10'	161.80	10.91	150.89
	MW-2	5'-15'	152.34	9.43	142.91
	MW-5	5'-15'	148.54	12.92	135.62
	MW-6	5'-15'	144.64	12.17	132.47
	MW-7	5'-15'	142.10	9.96	132.14
	MW-8	5'-15'	148.14	17.28	130.86
	MW-9	5'-20'	136.42	9.66	126.76
	MW-10	5'-15'	127.13	9.16	117.97
	MW-11	4'-9'	115.71	10.24	105.47
	MW-12	5'-20'	136.36	13.96	122.4
	MW-13	19'-24'	126.71	8.81	117.9
	MW-14	30'-34.5'	141.67	12.51	129.16
	MW-15	5'-13'	148.10	7.41	140.69
	MW-16	5'-15'	153.52	7.47	146.05
	MW-17	5'-13'	157.51	5.94	151.57
	MW-18	5'-16'	146.64	5.99	140.65
Gradient = S64°W, 0.053 ft/ft					

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
12/16/04- 12/17/04	MW-1	4'-10'	161.80	NM	---
	MW-2	5'-15'	152.34	7.70	144.64
	MW-5	5'-15'	148.54	NM	---
	MW-6	5'-15'	144.64	7.08	137.56
	MW-7	5'-15'	142.10	NM	---
	MW-8	5'-15'	148.14	NM	---
	MW-9	5'-20'	136.42	9.25	127.17
	MW-10	5'-15'	127.13	NM	---
	MW-11	4'-9'	115.71	6.68	109.03
	MW-12	5'-20'	136.36	11.20	125.16
	MW-13	19'-24'	126.71	NM	---
	MW-14	30'-34.5'	141.67	NM	---
	MW-15	5'-13'	148.10	8.40	139.70
	MW-16	5'-15'	153.52	4.74	148.78
	MW-17	5'-13'	157.51	5.96	151.55
	MW-18	5'-16'	146.64	3.22	143.42
Gradient = S55°W, 0.062 ft/ft					
03/30/05	MW-1	4'-10'	161.80	3.27	158.53
	MW-2	5'-15'	152.34	1.04	151.30
	MW-5	5'-15'	148.54	4.72	143.82
	MW-6	5'-15'	144.64	6.18	138.46
	MW-7	5'-15'	142.10	3.99	138.11
	MW-8	5'-15'	148.14	7.86	140.28
	MW-9	5'-20'	136.42	4.29	132.13
	MW-10	5'-15'	127.13	5.22	121.91
	MW-11	4'-9'	115.71	4.56	111.15
	MW-12	5'-20'	136.36	7.81	128.55
	MW-13	19'-24'	126.71	4.70	122.01
	MW-14	30'-34.5'	141.67	7.41	134.26
	MW-15	5'-13'	148.10	4.70	143.40

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
03/30/05 continued	MW-16	5'-15'	153.52	1.50	152.02
	MW-17	5'-13'	157.51	2.01	155.50
	MW-18	5'16'	146.64	2.55	144.09
Gradient = S47°W, 0.068 ft/ft					
06/22/05	MW-1	4'-10'	161.80	5.91	155.89
	MW-2	5'-15'	152.34	2.47	149.87
	MW-5	5'-15'	148.54	10.15	138.39
	MW-6	5'-15'	144.64	7.19	137.45
	MW-7	5'-15'	142.10	4.91	137.19
	MW-8	5'-15'	148.14	11.64	136.50
	MW-9	5'-20'	136.42	5.07	131.35
	MW-10	5'-15'	127.13	5.99	121.14
	MW-11	4'-9'	115.71	5.34	110.37
	MW-12	5'-20'	136.36	6.85	129.51
	MW-13	19'-24'	126.71	5.64	121.07
	MW-14	30'-34.5'	141.67	7.64	134.03
	MW-15	5'-13'	148.10	2.85	145.25
	MW-16	5'-15'	153.52	1.82	151.70
	MW-17	5'-13'	157.51	3.06	154.45
	MW-18	5'16'	146.64	3.35	143.29
Gradient = S56°W, 0.07 ft/ft					
09/30/05	MW-1	4'-10'	161.80	9.27	152.53
	MW-2	5'-15'	152.34	6.70	145.64
	MW-5	5'-15'	148.54	12.73	135.81
	MW-6	5'-15'	144.64	9.86	134.78
	MW-7	5'-15'	142.10	7.47	134.63
	MW-8	5'-15'	148.14	15.28	132.86
	MW-9	5'-20'	136.42	7.76	128.66
	MW-10	5'-15'	127.13	7.50	119.63

**Table 1. Groundwater Elevation Data**

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Former Albion Shell, 3300 N. Highway 1, Albion, California

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
09/30/05 continued	MW-11	4'-9'	115.71	7.31	108.40
	MW-12	5'-20'	136.36	11.84	124.52
	MW-13	19'-24'	126.71	7.08	119.63
	MW-14	30'-34.5'	141.67	10.80	130.87
	MW-15	5'-13'	148.10	4.31	143.79
	MW-16	5'-15'	153.52	5.80	147.72
	MW-17	5'-13'	157.51	5.30	152.21
	MW-18	5'16'	146.64	4.34	142.30
Gradient = S78°W, 0.073 ft/ft					
12/29/05	MW-1	4'-10'	161.80	3.55	158.25
	MW-2	5'-15'	152.34	3.19	149.15
	MW-5	5'-15'	148.54	2.52	146.02
	MW-6	5'-15'	144.64	4.95	139.69
	MW-7	5'-15'	142.10	3.74	138.36
	MW-8	5'-15'	148.14	7.73	140.41
	MW-9	5'-20'	136.42	2.97	133.45
	MW-10	5'-15'	127.13	4.93	122.20
	MW-11	4'-9'	115.71	4.84	110.87
	MW-12	5'-20'	136.36	8.43	127.93
	MW-13	19'-24'	126.71	5.45	121.26
	MW-14	30'-34.5'	141.67	8.13	133.54
	MW-15	5'-13'	148.10	0.33	147.77
	MW-16	5'-15'	153.52	2.86	150.66
	MW-17	5'-13'	157.51	1.79	155.72
	MW-18	5'16'	146.64	1.12	145.52
Gradient = S58°W, 0.036 ft/ft					

**Table 1. Groundwater Elevation Data**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

Date	Well ID	Screened Interval	TOC Elevation (feet above MSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet above MSL)
03/30/06	MW-1	4'-10'	161.80	3.39	158.41
	MW-2	5'-15'	152.34	2.67	149.67
	MW-5	5'-15'	148.54	6.51	142.03
	MW-6	5'-15'	144.64	5.68	138.96
	MW-7	5'-15'	142.10	3.75	138.35
	MW-8	5'-15'	148.14	8.35	139.79
	MW-9	5'-20'	136.42	2.74	133.68
	MW-10	5'-15'	127.13	4.81	122.32
	MW-11	4'-9'	115.71	4.67	111.04
	MW-12	5'-20'	136.36	5.34	131.02
	MW-13	19'-24'	126.71	5.34	121.37
	MW-14	30'-34.5'	141.67	7.67	134.00
	MW-15	5'-13'	148.10	+0.13	148.23
	MW-16	5'-15'	153.52	2.10	151.42
	MW-17 <sup>(1)</sup>	5'-13'	NS	1.37	---
	MW-18	5'-16'	146.64	2.07	144.57
Gradient = S53°W, 0.056 ft/ft					

Notes:

The tops of the well casings (TOC) were surveyed to establish horizontal location and elevation relative to mean sea level. Wells MW-1, MW-2, MW-3 and MW-4 were surveyed on October 19, 1999 by Richard Seale, a California-licensed surveyor. Wells MW-5, MW-6, MW-7 and MW-8 well casings were surveyed on September 30, 2000 by Richard Seale.

Wells MW-7, MW-9, MW-10, MW-11, MW-12, MW-13 and MW-14 were surveyed on June 27, 2002 by I. L Welty and Associates of Fort Bragg, CA, a California-licensed surveyor. The elevations are based on U.S. Coast & Geodetic Survey benchmark R 147. The elevation of this benchmark was adjusted from 176.23 ft to 178.68 ft for the 2002 survey. The TOC elevations for the older wells were adjusted to this datum. TOC elevations for MW-1, MW-7, MW-8 and MW-9 through MW-14 are approximately 3 ft above grade. These wells are monument wells.

Wells MW-5 and MW-6 were re-surveyed and, MW-15, MW-16, MW-17 and MW-18 were surveyed on December 9, 2004 by Virgil Chavez Land Surveying. The TOC elevations of MW-15, MW-16, MW-17 and MW-18 are based the California State Coordinate System, Zone 11 (NAD83). The benchmark elevation used for this survey is 142.97 feet (NAVD88). The new elevations of MW-5 (148.12 ft) and MW-6 (144.18 ft) were 0.42 ft and 0.46 ft lower, respectively, than the previous survey results, apparently because a different datum was used. The surveyed elevations of the TOCs for MW-15 through MW-18 have been adjusted lower by 0.44 ft (the average of the changes in the MW-5 and MW-6 elevations).

**Notes continued:**

TOC: Top of well casing

MSL: Mean sea level

\*: MW-3 was destroyed during December 2000 over-excavation.

\*\*: MW-4 was destroyed during October 2001 over-excavation. Water level was measured on October 25, 2001, before destruction.

NM: Not measured

NS: Not surveyed

(1): On March 27, 2006, the TOC of monitoring well MW-17 was cut to below grade due to paving activities at the site, and has not been re-surveyed. Therefor, the DTW measurement in MW-17 was not used in calculating groundwater-flow direction nor gradient at the site.

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**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

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Well ID	Date Sampled	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethy-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-1	10/12/99	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0*	NA	NA	ND<1.0
	01/27/00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	NA
	05/25/00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	NA
	09/14/00	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	NA
	12/06/00	ND<50	NA	ND<0.5	1.4	ND<0.5	1.9	ND<1.0	ND<5.0	ND	NA
	04/16/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	NA
	07/18/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	NA
	10/30/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	NA
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<5.0
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA	NA
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA	NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA	NA
	03/30/06	NA	NA	NA	NA	NA	NA	ND<0.5	ND	ND	NA

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

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Well ID	Date Sampled	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethy-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-2	10/12/99	4800 <sup>a</sup>	610 <sup>d</sup>	570	180	17	450	9700*	NA	NA	ND<330
	01/27/00	17,000	2500 <sup>D,b</sup>	2200	250	490	1800	9100	2200	ND	NA
	05/25/00	12,000 <sup>a</sup>	2900 <sup>D</sup>	2400	180	480	930	8900	ND<250	ND	NA
	09/14/00	7600 <sup>a</sup>	NA	1700	63	280	330	12,000	ND<250	ND	NA
	12/07/00	2300 <sup>a</sup>	NA	330	9.6	40	14	25,000	4500	ND	NA
	04/17/01	4400 <sup>a</sup>	NA	1000	19	210	140	13,000	2400	ND	NA
	07/18/01	4400 <sup>a</sup>	NA	920	16	150	56	15,000	ND<1700	ND	NA
	10/30/01	3000 <sup>a</sup>	NA	350	9.2	65	9.3	22,000	ND<5000	ND	ND<1000
	01/30/02	3500 <sup>a</sup>	NA	480	21	120	95	2700	ND<500	ND	NA
	05/22/02	2800 <sup>a</sup>	NA	740	9.2	210	32	4900	ND<1000	ND	ND<100
	08/28/02	3000 <sup>a</sup>	NA	620	9.5	120	5.1	19,000	ND<5000	ND	ND<500
	11/27/02	1500 <sup>a</sup>	NA	ND<200	ND<200	ND<200	ND<200	11,000	ND<2000	ND <sup>(1)</sup>	ND<200
	02/12/03	3400 <sup>a</sup>	NA	970	40	69	260	12,000	ND<2000	ND	ND<200
	05/29/03	2400 <sup>a</sup>	NA	500	17	91	95	11,000	ND<2500	ND	ND<250
	08/26/03	4200 <sup>a</sup>	NA	870	13	140	45	29,000	ND<10K	ND	NA
	02/27/04	3600 <sup>a</sup>	NA	660	36	99	200	12,000	ND<2500	ND	NA
	05/27/04	2700 <sup>a</sup>	NA	580	8.3	86	16	22,000	ND<5000	ND	NA
	08/27/04	2800 <sup>a</sup>	NA	550	49	52	64	17,000	ND<5000	ND	NA
	12/17/04	2500 <sup>a</sup>	NA	880	10	84	19	7800	ND<1700	ND	NA
Ozone system operating	03/30/05	9100 <sup>a</sup>	NA	1300	37	360	150	14,000	4400	ND	NA

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

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Well ID	Date Sampled	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-2 continued <i>Ozone system operating</i>	06/22/05	990 <sup>a</sup>	NA	220	ND<5.0	6.2	31	6000	1900	ND	NA
	09/30/05	3700 <sup>a</sup>	NA	410	6.6	190	14	6500	1800	ND	NA
	12/29/05	4300 <sup>a</sup>	NA	610	9.6	210	220	6500	ND<2500	ND	NA
	03/30/06	2600 <sup>b</sup>	NA	310	5.9	150	76	5600	ND<1000	ND	NA
MW-3 <sup>c</sup>	10/12/99	36,000 <sup>a</sup>	2000 <sup>d</sup>	18,000	4200	990	3700	450,000*	NA	NA	ND<10K
	01/27/00	130,000	6200 <sup>D,b</sup>	33,000	11,000	2200	10,000	570,000	50,000	ND	NA
	05/25/00	110,000 <sup>a</sup>	4400 <sup>D</sup>	38,000	5100	1900	7400	690,000	ND<125K	ND	NA
	09/14/00	76,000 <sup>a</sup>	NA	28,000	1700	1200	3300	440,000	ND<125K	ND	NA
MW-4 <sup>††</sup>	10/12/99	6000	860 <sup>d</sup>	10,000	370	300	350	280,000*	NA	NA	ND<10K
	01/27/00	57,000 <sup>a</sup>	1700 <sup>D,b</sup>	17,000	2900	910	2600	270,000	ND<25K	ND	NA
	05/25/00	54,000 <sup>a</sup>	1900 <sup>D</sup>	20,000	2000	1000	2300	290,000	ND<50K	ND	NA
	09/14/00	28,000 <sup>a</sup>	NA	9500	150	460	510	280,000	ND<25K	ND	NA
	12/07/00	41,000 <sup>a</sup>	NA	14,000	1900	830	1700	320,000	ND<25K	ND	NA
	04/17/01	38,000 <sup>a</sup>	NA	14,000	1200	750	1300	310,000	ND<25K	ND	NA
	07/18/01	40,000 <sup>a</sup>	NA	12,000	370	610	640	260,000	ND<25K	ND	NA
	09/14/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	ND	NA
MW-5	12/06/00	ND<50	NA	ND<0.5	1.1	ND<0.5	1.9	ND<1.0	ND<25K	ND	NA
	04/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	ND	NA
	07/18/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	ND	NA
	10/30/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	ND	ND<1.0
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	ND	NA

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
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Well ID	Date Sampled	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-5 continued	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.95	ND<5.0	ND	ND<0.5
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.55	ND<5.0 (2)	NA	NA
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA	NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA	NA
	03/30/06	NA	NA	NA	NA	NA	NA	NA	0.86	ND<5.0	NA
MW-6	09/14/00	19,000 <sup>a</sup>	NA	2400	360	700	2300	17,000	ND<2500	ND	NA
	12/07/00	23,000 <sup>a</sup>	NA	3100	210	890	1800	16,000	ND<2500	ND	NA
	04/17/01	20,000 <sup>a</sup>	NA	2200	320	440	1700	9000	ND<1250	ND	NA
	07/18/01	31,000 <sup>a</sup>	NA	3100	390	900	2500	11,000	ND<330	ND	NA
	10/30/01	25,000 <sup>a</sup>	NA	2200	190	710	1600	11,000	ND<1300	ND	ND<250
	01/30/02	20,000 <sup>a</sup>	NA	1100	460	500	2300	3000	ND<250	ND	NA
	05/22/02	13,000 <sup>a</sup>	NA	1500	310	460	1600	6800	ND<1000	ND	ND<100
	08/28/02	17,000 <sup>a</sup>	NA	2200	240	840	2100	10,000	ND<2500	ND	ND<250
	11/27/02	19,000 <sup>a</sup>	NA	2000	240	630	1500	9800	ND<1000	(1)	ND<100
	02/12/03	17,000 <sup>a</sup>	NA	1000	440	680	3300	3000	ND<1000	ND	ND<100
	05/29/03	14,000 <sup>a</sup>	NA	770	98	410	1400	4500	ND<500	ND	ND<50
	08/26/03	16,000 <sup>a</sup>	NA	1600	84	540	700	6900	ND<1200	ND	NA

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
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Well ID	Date Sampled	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-6 continued	02/27/04	11,000 *	NA	930	130	360	1600	3800	ND<500	ND	NA
	05/27/04	4000 *	NA	500	21	69	160	1800	ND<500	ND	NA
	08/27/04	13,000 *	NA	1100	65	370	490	3900	ND<1000	ND	NA
	12/17/04	17,000 *	NA	1300	85	560	1400	6100	ND<1000	ND	NA
Ozone system operating	03/30/05	9500 *	NA	280	34	77	460	1600	590	ND	NA
	06/22/05	11,000 *	NA	740	100	150	480	4900	ND<1000	ND	NA
	09/30/05	13,000 *	NA	920	61	350	690	8200	ND<1000	ND	NA
	12/29/05	23,000 *	NA	940	97	750	2800	6900	ND<2500	ND	NA
MW-7	03/30/06	8200 *	NA	260	24	190	570	2300	ND<500	ND	NA
	09/14/06	ND<50	NA	0.53	1.0	ND<0.5	1.4	1700	ND<250	ND	NA
	12/06/06	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2400	ND<250	ND	NA
	04/16/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	180	ND<25	ND	NA
07/18/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	910	ND<130	ND	NA
	10/30/01	52 *	NA	ND<0.5	ND<0.5	ND<0.5	0.64	1800	ND<130	ND	ND<25
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	430	ND<50	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	370	ND<50	ND	ND<5.0
06/14/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	630	ND<100	ND	NA
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	430	ND<50	ND	ND<5.0
	11/27/02	ND<50	NA	ND<5.0	ND<0.5	ND<5.0	ND<5.0	140	ND<50	ND <sup>(1)</sup>	ND<5.0
	02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	160	ND<50	ND	ND<5.0
05/29/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	35	ND<5.0	ND	ND<0.5

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
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Well ID	Date Sampled	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethy-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-7 continued	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<5.0	ND
	11/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.61	ND<5.0	ND
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.2	ND<5.0	ND
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND
	09/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND
Ozone system operating	03/30/06	NA	NA	NA	NA	NA	NA	NA	19	ND<5.0	ND
	09/14/00	ND<50	NA	0.67	2.1	ND<0.5	1.9	1.3	ND<5.0	ND	NA
	12/06/00 *	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/16/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	NA
	07/18/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	NA
	10/30/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	ND<1.0
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<5.0	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 (2)	NA	NA

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
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Well ID	Date Sampled	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethy-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates ug/l	Lead Scavengers µg/l
MW-8 continued	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0 <sup>(2)</sup>	NA	NA	NA
Ozone system operating	03/30/06	NA	NA	NA	NA	NA	NA	ND<0.5	ND<5.0	ND	NA
MW-9	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<100	ND	ND<0.5
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	11/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.53	ND<5.0	ND <sup>(1)</sup>	ND<0.5
	02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.56	ND<5.0	ND	ND<0.5
	05/29/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	11/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	05/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
Ozone system operating	12/17/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	12/29/05	NA	NA	NA	NA	NA	NA	ND<0.5	ND<5.0	ND	NA
	03/30/06	NA	NA	NA	NA	NA	NA	ND<0.5	ND<5.0	ND	NA

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
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Well ID	Date Sampled	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-10	05/22/02	ND<50	NA	1.3	ND<0.5	ND<0.5	ND<0.5	900	ND<100	ND	ND<10
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	870	ND<120	ND	ND<12
	11/27/02	ND<50	NA	ND<10	ND<10	ND<10	ND<10	620	ND<100	ND <sup>(1)</sup>	ND<10
	02/12/03	61 *	NA	26	ND<0.5	ND<0.5	ND<0.5	1100	ND<170	ND	ND<17
	05/29/03	ND<50	NA	2.7	ND<0.5	ND<0.5	ND<0.5	1300	ND<330	ND	ND<33
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	950	ND<170	ND	NA
	11/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	410	ND<100	ND	NA
	02/27/04	230 *	NA	93	0.81	ND<0.5	ND<0.5	890	ND<100	ND	NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	450	ND<100	ND	NA
	03/30/05	210 *	NA	39	0.67	ND<0.5	ND<0.5	810	320	ND	NA
<i>Ozone system operating</i>	09/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1400	ND<500	ND	NA
	03/30/06	120 *	NA	18	0.55	ND<0.5	ND<0.5	630	ND<100	ND	NA
MW-11	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	10/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND <sup>(1)</sup>	ND<0.5
	02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	05/28/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	11/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

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Well ID	Date Sampled	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-11 continued	05/27/04	ND<50	NA	1.1	ND<0.5	1.2	3.5	ND<0.5	ND<5.0	ND	NA
Ozone system operating	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	12/17/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	12/29/05	NA	NA	NA	NA	NA	NA	NA	ND<0.5	ND	NA
	03/30/06	NA	NA	NA	NA	NA	NA	NA	ND<0.5	ND	NA
MW-12	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/28/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	11/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND <sup>(1)</sup>	ND<0.5
	02/12/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	05/28/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	ND<0.5
	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	11/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	05/27/04	ND<50	NA	0.57	ND<0.5	0.63	1.5	ND<0.5	ND<5.0	ND	NA
Ozone system operating	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	12/17/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND	NA
	03/30/06	NA	NA	NA	NA	NA	NA	NA	ND<0.5	ND	NA

**Table 2.** Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

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Well ID	Date Sampled	TPH <sup>g</sup> µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethy-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-14** continued	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	350	ND<100	ND	NA
Ozone system operating	08/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	210	ND<50	ND	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	130	ND<25	ND	NA
	09/30/05	ND<50	NA	ND<0.5	0.56	ND<0.5	1.1	94	ND<17	ND	NA
	<b>03/30/06</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>43</b>	<b>ND&lt;5.0</b>	<b>ND</b>	<b>NA</b>
MW-15	08/27/04	15,000 <sup>a,j</sup>	NA	3700	1300	140	810	10,000	ND<2000	ND	NA
Ozone system operating	12/17/04	18,000 <sup>a</sup>	NA	4500	1400	240	1000	13,000	2200	ND	NA
	03/30/05	78,000 <sup>a</sup>	NA	15,000	10,000	1500	6300	20,000	9100	ND	NA
	06/22/05	79,000 <sup>a</sup>	NA	14,000	10,000	1400	5600	22,000	ND<5000	ND	NA
	09/30/05	91,000 <sup>a</sup>	NA	17,000	11,000	1500	6700	28,000	ND<5000	ND	NA
	12/29/05	98,000 <sup>a</sup>	NA	17,000	11,000	1700	7200	23,000	ND<10,000	ND	NA
	<b>03/30/06</b>	<b>94,000<sup>a</sup></b>	<b>NA</b>	<b>16,000</b>	<b>9600</b>	<b>1500</b>	<b>6600</b>	<b>17,000</b>	<b>ND&lt;5000</b>	<b>ND</b>	<b>NA</b>
MW-16	08/27/04	13,000 <sup>a</sup>	NA	2700	950	62	1100	28,000	ND<5000	ND	NA
Ozone system operating	12/17/04	32,000 <sup>a</sup>	NA	6400	2200	690	3300	48,000	ND<10,000	ND	NA
	03/30/05	67,000 <sup>a</sup>	NA	8600	640	750	2600	45,000	16,000	ND	NA
	06/22/05	62,000 <sup>a</sup>	NA	12,000	5100	1300	6200	45,000	ND<10,000	ND	NA
	09/30/05	45,000 <sup>a</sup>	NA	9600	2800	930	4200	63,000	ND<10,000	ND	NA
	12/29/05	89,000 <sup>a</sup>	NA	16,000	5900	1900	8700	59,000	ND<25,000	ND	NA
	<b>03/30/06</b>	<b>47,000<sup>a</sup></b>	<b>NA</b>	<b>11,000</b>	<b>930</b>	<b>820</b>	<b>3100</b>	<b>40,000</b>	<b>ND&lt;10,000</b>	<b>ND</b>	<b>NA</b>

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

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Well ID	Date Sampled	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethy-benzene µg/l	Xylenes µg/l	MTBE µg/l	TBA µg/l	Other Oxygenates µg/l	Lead Scavengers µg/l
MW-17	08/27/04	ND<50 <sup>i</sup>	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	250	ND<50	ND	NA
<i>Ozone system operating</i>	12/17/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1200	ND<170	ND	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	23	7.5	ND	NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	20	ND<5.0	57 <sup>(s)</sup>	NA
	09/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	22	ND<5.0	ND	NA
	12/29/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	54	ND<10	ND	NA
	03/30/06	NA	NA	NA	NA	NA	NA	1.6	ND<5.0	ND	NA
	08/27/04	28,000 <sup>a</sup>	NA	4500	760	690	1500	21,000	ND<5000	ND	NA
<i>Ozone system operating</i>	12/17/04	27,000 <sup>a</sup>	NA	5200	1100	1100	2200	29,000	ND<10,000	ND	NA
	03/30/05	19,000 <sup>a</sup>	NA	3600	620	550	820	25,000	6500	ND	NA
	06/22/05	14,000 <sup>a</sup>	NA	2100	460	480	880	19,000	ND<5000	ND	NA
	09/30/05	9900 <sup>a</sup>	NA	2000	220	430	440	32,000	ND<5000	ND	NA
	12/29/05	8300 <sup>a</sup>	NA	1300	200	330	360	20,000	ND<10,000	ND	NA
	03/30/06	10,000 <sup>a</sup>	NA	1400	350	410	610	11,000	ND<2500	ND	NA

Notes

TPHg: Total petroleum hydrocarbons as gasoline

TPHd: Total petroleum hydrocarbons as diesel

MTBE: Methyl tert-butyl ether; analyzed by Analytical Method SW8260B unless noted otherwise

\*: Deep monitoring wells. MW-13 is next to shallow well MW-10; MW-14 is next to shallow well MW-7

µg/l: Micrograms per liter

ND: Not detected above the reporting limit

NA: Not analyzed

K: Value x1000

†: MW-3 was destroyed during December 2000 over-excavation

**Table 2. Analytical Results - Groundwater Samples from Monitoring Wells: Fuel Hydrocarbons, Oxygenates and Lead Scavengers**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

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Notes continued:

- ††: MW-4 was destroyed during October 2001 over-excavation
- a: Unmodified or weakly modified gasoline is significant
- b: Diesel range compounds are significant; no recognizable pattern
- d: Gasoline range compounds are significant; no recognizable pattern
- D: Gasoline range compounds are significant
- f: One to a few isolated non-target peaks present
- i: Liquid sample that contains greater than ~1 vol. % sediment
- x: Well was dry on this date
- (1): Samples were also analyzed for volatile organics, full spectrum scan, by Analytical Method SW8260B. In addition to the results reported above, the following analytes were detected: MW-6: 130 µg/l naphthalene; 780 µg/l 1,2,4-trimethylbenzene; and 220 µg/l carbon disulfide. MW-13: 1.0 µg/l carbon disulfide. MW-14: 180 µg/l 2-butanone (MEK)
- (2): Sample analyzed for MTBE by Analytical Method SW8021B/8015Cm
- (3): Ethanol

**Table 3.** Analytical Results - Groundwater Samples from Water-Supply Wells, Test Wells and Surface Water  
Former Albion Shell, 3300 N. Highway 1, Albion, California

**Table 3. Analytical Results - Groundwater Samples from Water-Supply Wells, Test Wells and Surface Water  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l (8260)	Other Oxygenates µg/l	Lead Scavengers µg/l
<b>DW-1 continued</b>	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	09/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	12/29/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	<b>03/30/06</b>	<b>ND&lt;50</b>	<b>NA</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND</b>	<b>NA</b>
	05/25/06	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
LHW-1 (Ledford House Water-supply Well)	12/07/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
LHW-2 (Ledford House Water-supply Well)	05/25/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	09/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
LHW-1/LHW-2 (Ledford House Water-supply Wells)	04/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	07/18/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND<0.5
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	08/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	11/26/02 <sup>4</sup>	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	05/28/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5

**Table 3. Analytical Results - Groundwater Samples from Water-Supply Wells, Test Wells and Surface Water  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPH <sup>g</sup> µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl- benzene µg/l	Xylenes µg/l	MTBE µg/l (8260)	Other Oxygenates µg/l	Lead Scavengers µg/l
LHW-1/LHW-2 (Ledford House Water-supply Wells) continued	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	11/25/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	05/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	12/16/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	12/29/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	05/25/06	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	LHW-3 (Water-supply Well)									
LHP-1 - LHP (Ledford House Pond)	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND<0.5
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	ND<0.5
	11/26/02 <sup>4</sup>	ND<50	NA	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND	ND	ND<0.5
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	WP-1	09/07/99	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<5 * ND<0.5	NA	NA
WP-2	01/27/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP-3	05/25/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP-4	09/13/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP-5	12/07/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP-6	04/16/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA

**Table 3. Analytical Results - Groundwater Samples from Water-Supply Wells, Test Wells and Surface Water  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l (8260)	Other Oxygenates µg/l	Lead Scavengers µg/l
WP-7	07/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP-8	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND<0.5
WP-9	01/29/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
WP (Well Pond)	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	08/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	11/26/02 <sup>4</sup>	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	05/28/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
DP-1	09/07/99 <sup>1</sup>	56 <sup>f</sup>	100 <sup>b</sup>	570	180	17	450	14	ND	ND<1.0
DP-2	01/27/00 <sup>2</sup>	140 <sup>a</sup>	ND<50	24	19	1.9	11	270	ND	ND<10
DP-3	05/25/00 <sup>2</sup>	ND<50	4.7	3.2	ND<0.5	3.3	420	ND	NA	
DP-4	09/13/00	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	17	ND	NA	
DP-5	12/07/00	ND<50	NA	0.62	ND<0.5	ND<0.5	ND<0.5	230	ND	NA
DP-6	04/16/01	ND<50	NA	0.69	ND<0.5	ND<0.5	ND<0.5	160	ND	NA
DP-7	07/17/01	ND<50	NA	0.68	ND<0.5	ND<0.5	ND<0.5	52	ND	NA
DP-8	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	16	ND	ND<0.5
DP-9	01/29/02	120 <sup>a</sup>	NA	22	20	2.5	14	170	ND	NA
DP (Duck Pond)	05/22/02	ND<50	NA	1.8	0.55	ND<0.5	0.79	97	ND	ND<1.7
	08/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	100	ND	ND<2.5
	11/26/02 <sup>4</sup>	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	35	ND	ND<0.5

**Table 3. Analytical Results - Groundwater Samples from Water-Supply Wells, Test Wells and Surface Water  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l (8260)	Other Oxygenates µg/l	Lead Scavengers µg/l
<b>DP (Duck Pond continued)</b>	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	63	ND ND<1.0
	05/29/03 <sup>s</sup>	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	220	ND ND<10
	11/25/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND NA
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND NA
	05/27/04	ND<0.5	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND NA
	12/16/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND NA
	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND NA
	09/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND NA
12/29/05	NA	NA	NA	NA	NA	NA	NA	ND<0.5	ND	ND NA
	03/30/06	NA	NA	NA	NA	NA	NA	0.93	ND	ND NA
<b>DPI-1 (Duck Pond Influent)</b>	04/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.1	ND	ND NA
	01/29/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND NA
<b>DPE-1 (Duck Pond Effluent)</b>	04/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	120	ND	ND NA
	SD-1 (Storm Drain Ditch)	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND NA
TW-3 (Smith Property Test Well Destroyed 10/02)	04/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND NA
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND ND<0.5

**Table 3. Analytical Results - Groundwater Samples from Water-Supply Wells, Test Wells and Surface Water  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l (8260)	Other Oxygenates µg/l	Lead Scavengers µg/l
TW-4 (Smith Property Test Well Destroyed 10/02)	07/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND<0.5
	01/29/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.1	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	08/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	07/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	10/26/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND<0.5
TW-5 (Smith Property Test Well)	01/29/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	08/27/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	11/26/02 <sup>3,4</sup>	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	07/17/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.2	ND
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	62	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	27	ND	ND<0.5
SW-1 (Duck Pond Drainage)	08/27/02 <sup>3,4</sup>	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.5	ND	ND<0.5
	05/28/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10	ND	ND<0.5
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.3	ND	ND
	05/27/04	ND<50 <sup>i</sup>	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	12/16/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.8	ND	NA

**Table 3. Analytical Results - Groundwater Samples from Water-Supply Wells, Test Wells and Surface Water  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l (8260)	Other Oxygenates µg/l	Lead Scavengers µg/l
<b>SW-1 (Duck Pond Drainage) continued</b>	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.6	ND	NA
	06/22/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.5	ND	NA
	12/29/05	NA	NA	NA	NA	NA	NA	4.4	ND	NA
	<b>03/30/06</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>7.6</b>	<b>ND</b>	<b>NA</b>
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	42	ND	NA
<b>SW-2 (Duck Pond Drainage)</b>	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.4	ND	ND<0.5
	08/27/02 <sup>3</sup>	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.9	ND	ND<0.5
	01/30/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	NA
	05/22/02	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	ND<0.5
<b>SW-3 (Northwest Drainage)</b>	08/27/02 <sup>3</sup>	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	ND<0.5
	11/26/02 <sup>4</sup>	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	ND<0.5
	02/11/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	ND<0.5
	05/28/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	ND<0.5
<b>SW-4 (Northwest Drainage)</b>	08/26/03	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	11/25/03	ND<50 <sup>i</sup>	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND<0.5
	02/27/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	NA
	05/27/04	ND<50 <sup>i</sup>	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	NA
	08/26/04	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	ND	NA

**Table 3. Analytical Results - Groundwater Samples from Water-Supply Wells, Test Wells and Surface Water  
Former Albion Shell, 3300 N. Highway 1, Albion, California**

Sample ID	Sample Date	TPHg µg/l	TPHd µg/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE µg/l (8260)	Other Oxygenates µg/l	Lead Scavengers µg/l
SW-4 (Northwest Drainage) continued	03/30/05	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	06/22/05	ND<50 <sup>i</sup>	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	12/29/05	NA	NA	NA	NA	NA	NA	ND<0.5	ND<0.5	ND
	03/30/06	NA	NA	NA	NA	NA	NA	ND<0.5	ND<0.5	ND
PE-1 (Duck Pond Drain Pipe)	07/18/01	ND<50	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND	ND

**Notes**

TPHg: Total petroleum hydrocarbons as gasoline

TPHd: Total petroleum hydrocarbons as diesel

MTBE: Methyl tert-butyl ether; analyzed by Analytical Method SW8260B unless noted otherwise

µg/l: Micrograms per liter

ND: Not detected above the reporting limit

NA: Not analyzed

NS: Not sampled

a: Unmodified or weakly modified gasoline is significant

b: Diesel range compounds are significant; no recognizable pattern

f: One to a few isolated peaks present; identified as hexanal and pentanal (not gasoline)

i: Liquid sample that contains greater than ~2 vol. % sediment

j: No recognizable pattern

MTBE by EPA Method 8021B/8015Cn

Sample DP-1 also analyzed for volatile organics, full spectrum scan, by Analytical Method SW8260B; results were 6.7 µg/l carbon disulfide, as well as non-target peaks identified as hexanal and pentanal  
Samples DP-2 and DP-3 were also analyzed for volatile organics, full spectrum scan, by Analytical Method SW8260B. Except for MTBE, benzene, toluene and xylene results reported above, results were ND.

Surface water was not present and samples were not collected from the duck pond or northwest drainage areas on August 27, 2002.

Samples were also analyzed for volatile organics, full spectrum scan, by Analytical Method SW8260B. In addition to results reported above, 0.61 µg/l bromoform and 0.93 µg/l dibromochloromethane were detected in samples from LHW-1/LHW-2.

Sample DP also analyzed for total organic carbon (TOC) by Method 5310C. Result was 6.53 milligrams per liter (mg/l); reporting limit was 1.00 mg/l.

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**Table 4. Analytical Results - Groundwater Samples from Monitoring Wells: Inorganic Anions and Dissolved Metals**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

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Well ID	Date Sampled	Bromate mg/l	Bromide mg/l	Hexachrome µg/l	Molybdenum µg/l	Selenium µg/l	Vanadium µg/l
MW-2	08/27/04	ND<0.040	1.0	ND<0.2	0.67	ND<0.5	0.95
<i>Ozone system operating</i>	12/17/04	ND<0.1	0.80	ND<0.2	0.57	ND<0.5	ND<0.5
	03/30/05	ND<0.005	0.91	ND<0.2	0.59	ND<0.5	0.86
	06/22/05	0.024	0.74	ND<0.2	ND<0.5	ND<0.5	0.63
	09/30/05	ND<0.005	1.3	ND<0.2	0.89	ND<0.5	ND<0.5
	12/29/05	ND<0.025 <sup>j</sup>	0.83	ND<0.2	1.7	0.54	ND<0.5
	03/30/06	<b>ND&lt;0.005</b>	<b>1.2</b>	<b>ND&lt;0.2</b>	<b>1.1</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
MW-6	08/27/04	ND<0.040	1.3	ND<0.2	ND<0.5	ND<0.5	ND<0.5
<i>Ozone system operating</i>	12/17/04	ND<0.1	1.4	ND<0.2	ND<0.5	ND<0.5	ND<0.5
	03/30/05	ND<0.005	0.59	ND<0.2	ND<0.5	ND<0.5	ND<0.5
	06/22/05	ND<0.005	0.97	ND<0.2	ND<0.5	ND<0.5	ND<0.5
	09/30/05	ND<0.005	0.88	ND<0.2	ND<0.5	ND<0.5	ND<0.5
	12/29/05	ND<0.025 <sup>j</sup>	0.74	ND<0.2	0.67	ND<0.5	ND<0.5
	03/30/06	<b>ND&lt;0.005</b>	<b>0.61</b>	<b>ND&lt;0.2</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
MW-15	08/27/04	ND<0.040	2.2	ND<0.2	7.1	0.73	1.4
<i>Ozone system operating</i>	12/17/04	ND<0.1	1.4	ND<0.2	3.8	ND<0.5	0.70
	03/30/05	ND<0.005	1.6	ND<0.2	0.83	0.85	0.72
	06/22/05	0.054	1.6	ND<0.2	0.54	0.89	ND<0.5
	09/30/05	ND<0.005	1.5	ND<0.2	0.68	0.82	ND<0.5
	12/29/05	ND<0.025 <sup>j</sup>	1.4	ND<0.2	0.61	0.96	ND<0.5
	03/30/06	<b>ND&lt;0.005</b>	<b>1.9</b>	<b>ND&lt;0.2</b>	<b>0.53</b>	<b>0.95</b>	<b>ND&lt;0.5</b>
MW-16	08/27/04	ND<0.040	2.0	ND<0.2	15	1.0	6.5
<i>Ozone system operating</i>	12/17/04	ND<0.1	1.2	ND<0.2	6.1	1.2	1.5
	03/30/05	ND<0.005	0.92	ND<0.2	3.6	1.5	ND<0.5
	06/22/05	0.056	0.77	ND<0.2	1.5	1.6	ND<0.5
	09/30/05	ND<0.005	0.73	ND<0.2	1.9	0.78	ND<0.5
	12/29/05	ND<0.025 <sup>j</sup>	0.62	ND<0.2	1.2	1.7	ND<0.5
	03/30/06	<b>ND&lt;0.005</b>	<b>0.98</b>	<b>ND&lt;0.2</b>	<b>1.2</b>	<b>1.6</b>	<b>ND&lt;0.5</b>

**Table 4. Analytical Results - Groundwater Samples from Monitoring Wells: Inorganic Anions and Dissolved Metals**  
**Former Albion Shell, 3300 N. Highway 1, Albion, California**

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Well ID	Date Sampled	Bromate mg/l	Bromide mg/l	Hexachrome µg/l	Molybdenum µg/l	Selenium µg/l	Vanadium µg/l
MW-17	08/27/04	ND<0.040	0.24	ND<0.2	1.4	ND<0.5	0.87
<i>Ozone system operating</i>	12/17/04	ND<0.1	0.26	ND<0.2	1.4	0.69	0.62
	03/30/05	ND<0.005	0.21	0.62	2.1	0.86	0.85
	06/22/05	ND<0.005	0.14	0.46	2.3	0.77	1.0
	09/30/05	ND<0.005	0.13	ND<0.2	1.9	ND<0.5	0.68
	12/29/05	ND<0.025 <sup>j</sup>	ND<0.1	ND<0.2	1.7	ND<0.5	ND<0.5
	<b>03/30/06</b>	<b>ND&lt;0.005</b>	<b>1.3</b>	<b>ND&lt;0.2</b>	<b>2.6</b>	<b>0.52</b>	<b>0.61</b>
MW-18	08/27/04	ND<0.040	1.3	ND<0.2	0.68	0.53	ND<0.5
<i>Ozone system operating</i>	12/17/04	ND<0.1	1.5	ND<0.2	0.60	0.68	ND<0.5
	03/30/05	ND<0.005	1.4	ND<0.2	ND<0.5	0.56	ND<0.5
	09/30/05	ND<0.005	1.5	ND<0.2	0.57	ND<0.5	ND<0.5
	12/29/05	ND<0.025 <sup>j</sup>	1.2	ND<0.2	0.67	ND<0.5	ND<0.5
	<b>03/30/06</b>	<b>ND&lt;0.005</b>	<b>1.5</b>	<b>ND&lt;0.2</b>	<b>2.3</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>
WQO	--	NE	NE	21	35	35	50

Notes

mg/l: Milligrams per liter

µg/l: Micrograms per liter

ND: Not detected above the reporting limit

WQO: Water Quality Objective (Central Valley Regional Water Quality Control Board, August 2003)

NE: Not established

j: Sample diluted due to high inorganic content

**Table 5. Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential, Temperature and pH  
Former Albion Shell, 3300 Highway 1 North, Albion, California**

**Page 1 of 5**

<b>Well ID</b>	<b>Date</b>	<b>DTW (feet)</b>	<b>DO (mg/l)</b>	<b>ORP (mV)</b>	<b>Temperature (°F)</b>	<b>pH</b>
MW-1	08/26/04 *	10.91	0.12	166	56.5	6.91
	03/30/05 *	3.27	0.88	59	54.4	8.42
	03/30/06 *	3.39	1.19	-22	55.2	6.79
MW-2 (Downgradient from Trench RT-1)	08/27/04 *	9.43	0.90	152	59.1	7.29
	11/3/04	—	0.65	—	63.3	—
	12/17/04 *	7.70	0.43	150	60.1	7.79
	01/21/05	—	0.17	—	56.1	—
	02/15/05	—	0.18	—	55.8	—
	03/02/05	—	0.30	—	57.4	—
	03/30/05 *	1.04	1.59	121	57.4	6.72
	04/29/05	—	0.19	—	57.2	—
	05/31/05	—	0.14	—	57.5	—
	06/22/05 *	2.47	0.60	130	56.6	6.18
	08/31/05	—	0.14	—	61.7	—
	09/30/05 *	6.70	0.23	—	60.6	6.31
	10/27/05	—	0.19	—	61.9	—
	11/29/05	—	0.50	—	58.9	—
MW-5	08/26/04 *	12.92	0.20	160	61.3	6.50
	03/30/05 *	4.72	0.22	50	56.4	8.78
	03/30/06 *	6.51	1.25	184	55.9	5.68
MW-6 (Downgradient from Trench RT-2)	08/27/04 *	12.17	3.18	120	63.4	6.83
	11/3/04	—	0.50	—	60.3	—
	12/17/04 *	7.08	0.44	120	59.4	6.61
	01/21/05	—	0.17	—	56.7	—
	02/15/05	—	0.17	—	56.3	—
	03/02/05	—	0.19	—	56.1	—

**Table 5. Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential, Temperature and pH  
Former Albion Shell, 3300 Highway 1 North, Albion, California**

<b>Well ID</b>	<b>Date</b>	<b>DTW (feet)</b>	<b>DO (mg/l)</b>	<b>ORP (mV)</b>	<b>Temperature (°F)</b>	<b>pH</b>
MW-6 (Downgradient from Trench RT-2) continued	03/30/05 *	6.18	2.07	38	56.8	7.57
	04/29/05	—	0.18	—	57.2	—
	05/31/05	—	0.13	—	57.5	—
	06/22/05 *	7.19	0.86	51	61.9	7.14
	08/31/05	—	0.14	—	59.9	—
	09/30/05 *	9.86	0.53	—	62.8	5.72
	10/27/05	—	0.15	—	60.4	—
	11/29/05	—	1.99	—	59.8	—
	12/29/05 *	4.95	1.48	-0.0	59.2	6.32
	03/30/06 *	5.68	2.19	52	56.9	6.24
MW-7 (Shallow well paired with MW-14)	08/26/04 *	9.96	4.73	65	57.0	9.41
	03/30/05 *	3.99	2.99	124	53.8	7.05
	09/30/05 *	7.47	4.21	—	58.7	6.09
	03/30/06 *	3.75	0.86	26	53.4	—
MW-8	08/26/04 *	17.28	7.00	170	56.6	8.01
	03/30/05 *	7.86	6.80	103	56.8	7.90
	03/30/06 *	8.35	3.09	156	54.9	5.97
MW-9	08/26/04 *	9.66	1.72	145	57.2	7.28
	12/17/04 *	9.25	1.71	140	55.1	7.41
	03/30/05 *	4.29	2.80	83	53.8	7.47
	06/22/05 *	5.07	1.87	183	57.3	5.59
	12/29/05 *	2.97	3.13	137	55.0	6.74
	03/30/06 *	2.74	0.87	123	54.3	6.86
MW-10 (Shallow well paired with MW-13)	08/26/04 *	9.19	0.10	124	57.5	8.27
	03/30/05 *	5.22	0.17	77	54.0	8.21
	09/30/05 *	7.50	0.19	—	58.3	6.66
	03/30/06 *	4.81	1.44	25	55.1	—

**Table 5. Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential, Temperature and pH  
Former Albion Shell, 3300 Highway 1 North, Albion, California**

Well ID	Date	DTW (feet)	DO (mg/l)	ORP (mV)	Temperature (°F)	pH
MW-11	08/26/04 *	10.24	1.09	184	58.2	7.76
	12/17/04 *	6.68	1.30	170	54.6	7.75
	03/30/05 *	4.56	6.87	134	56.1	7.40
	06/22/05 *	5.34	4.17	193	58.2	6.02
	12/29/05 *	4.84	4.16	105	54.7	7.70
	03/30/06 *	4.67	1.59	78	53.9	—
MW-12	08/26/04 *	13.96	1.20	178	59.1	7.38
	12/17/04 *	11.20	0.88	179	55.9	7.55
	03/30/05 *	7.81	1.60	135	58.3	7.73
	06/22/05 *	6.85	1.99	207	59.6	6.13
	03/30/06 *	5.34	1.89	152	55.1	6.26
MW-13 (Deep well paired with MW-10)	08/26/04 *	8.81	4.66	76	59.6	10.97
	03/30/05 *	4.70	6.53	30	54.9	11.48
	09/30/05 *	7.08	2.14	—	58.6	12.16
	03/30/06 *	5.34	3.93	0	55.0	—
MW-14 (Deep well paired with MW-7)	08/26/04 *	12.51	1.59	8	56.9	11.47
	03/30/05 *	7.41	3.65	35	54.3	11.72
	09/30/05 *	10.80	1.48	—	57.1	7.10
	03/30/06 *	7.67	4.48	525	55.2	—
MW-15 (Cross gradient from Trench RT-1)	08/27/04 *	7.41	4.00	166	57.4	7.55
	12/17/04 *	8.40	2.13	165	56.8	7.51
	03/30/05 *	4.70	0.37	90	55.5	6.50
	05/31/05	—	0.15	—	55.5	—
	06/22/05 *	2.85	1.61	33	57.3	6.73
	08/31/05	—	0.15	—	59.8	—
	09/30/05 *	4.31	0.60	—	58.5	6.35
	10/27/05	—	0.13	—	60.1	—

**Table 5. Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential, Temperature and pH  
Former Albion Shell, 3300 Highway 1 North, Albion, California**

Well ID	Date	DTW (feet)	DO (mg/l)	ORP (mV)	Temperature (°F)	pH
MW-15 (Cross gradient from Trench RT-1) continued	11/29/05	—	0.33	—	56.5	—
	12/29/05 *	0.33	1.00	-0.0	55.5	6.45
	03/30/06 *	+0.13	1.05	-23	53.8	6.67
MW-16 (Upgradient from Trench RT-1)	08/27/04 *	7.47	4.59	174	61.3	7.32
	11/3/04	—	0.65	—	60.2	—
	12/17/04 *	4.74	0.19	130	60.6	7.51
	01/21/05	—	0.18	—	56.1	—
	02/15/05	—	0.19	—	55.9	—
	03/02/05	—	0.29	—	56.4	—
	03/30/05 *	1.50	0.22	0	57.1	6.86
	04/29/05	—	0.22	—	57.7	—
	05/31/05	—	0.15	—	57.6	—
	06/22/05 *	1.82	0.30	11	60.1	6.92
	08/31/05	—	0.14	—	60.9	—
	09/30/05 *	5.80	0.24	—	61.0	6.34
	10/27/05	—	0.18	—	61.1	—
	11/29/05	—	0.26	—	59.7	—
MW-17 <sup>†</sup> (Within UST excavation backfill)	12/29/05 *	2.86	0.61	-63	59.0	6.24
	03/30/06 *	2.10	0.72	-74	56.8	6.69
	01/21/05	—	0.88	—	57.5	—
	02/15/05	—	0.94	—	58.1	—
	03/02/05	—	3.21	—	56.9	—
	03/30/05 *	2.01	0.99	177	57.9	7.47
	04/29/05	—	0.15	—	59.9	—
	05/31/05	—	1.01	—	60.5	—
	06/22/05 *	3.06	0.43	101	63.5	7.97
	08/31/05	—	1.11	—	61.3	—
	09/30/05 *	5.30	0.10	—	65.2	7.07

**Table 5. Monitoring Well Groundwater Results for Dissolved Oxygen, Oxidation Reduction Potential, Temperature and pH  
Former Albion Shell, 3300 Highway 1 North, Albion, California**

Well ID	Date	DTW (feet)	DO (mg/l)	ORP (mV)	Temperature (°F)	pH
MW-17 <sup>†</sup> (Within UST excavation backfill) continued	10/27/05	—	4.31	—	62.1	—
	11/29/05	—	0.98	—	64.1	—
	12/29/05 *	1.79	0.45	121	59.7	6.51
	03/30/06 *	1.37	2.32	60	56.3	—
MW-18 (Upgradient from Trench RT-2)	01/21/04	—	0.15	—	55.9	—
	02/15/05	—	0.17	—	56.9	—
	03/02/05	—	0.23	—	57.4	—
	03/30/05 *	2.55	0.21	28	57.4	6.72
	04/29/05	—	0.18	—	58.4	—
	05/31/05	—	0.29	—	58.9	—
	06/22/05 *	3.35	0.43	-24	61.1	7.00
	08/31/05	—	0.31	—	60.7	—
	09/30/05 *	4.34	0.25	—	64.1	5.92
	10/27/05	—	0.27	—	60.8	—
	11/29/05	—	0.40	—	61.7	—
	12/29/05 *	1.12	0.61	-85	59.9	6.30
	03/30/06 *	2.07	0.34	-69	57.2	6.81

**Notes**

DTW: Depth to water

DO: Dissolved oxygen

ORP: Oxidation-reduction potential

mg/l: Milligrams per liter

mV: Millivolts

°F: Degrees Fahrenheit

\*: Combined O&M and quarterly sampling event; where possible, readings taken after last well volume purged

RT-1: North remediation trench

RT-2: South remediation trench

†: MW-17 is located in the pea-gravel backfill of the December 2000 excavation

**Table 6. Ozone System Operations and Maintenance Log**  
**Former Albion Shell, 3300 Highway 1 North, Albion, California**

**Page 1 of 4**

<b>Panel</b>	<b>Date</b>	<b>Comments</b>
T-1	08/27/04 *	Pre-ozone microsparging baseline measurements
	11/1-2/04	System startup
	11/3/04	Check system pressures; jumper relay wire installed; remove ozonator hose from bottom of panel
	11/12/04	Panel running; check for panel and sparge point leaks
	11/18/04	Panel running; check pressures
	12/16-17/04 *	System down; ozone sensor tripped; restart system; check meter
	01/21/05	System running; T1SP-4 grout/leak repaired
	02/15/05	Panel down (ozone switch); restart panel; check for leaks
	03/02/05	System bubbling at surface; reduced run times to 53.75% of original run time
	03/30/05 *	Panel running; check for leaks
	04/29/05	Panel running; vacuum and clean out panel, check pressures, tighten all electrical; reprogram run times to full run times
	05/31/05	System down; rebuild compressor; cleanup inlet, check pressures
	06/22/05 *	System running; dismantle compressor and replace piston; check pressures; clean out panel; replace main power switch
	08/31/05	System running; rewire panel for auto start-up (two transformers and relay); clean out intake and compressors
	09/30/05 *	System running; open and clean out compressor and intake. Needs new piston. Pressure check; check all wire connections.
	10/27/05	System running; open compressor, replace piston and flip cylinder, install pressure check
	11/29/05	System running; clean intake filter and tube, dust panel, pressure check system
	12/29/05 *	System running; open compressor, replace worn piston, reinstall pressure check
	01/31/06	System running; clean filters and intakes; lower run times for all stations to 2 minutes (blowing water to surface)
	03/30/06 *	System running; reverse cylinder; clean out intakes; check pressures; clock: 9057.48

**Table 6. Ozone System Operations and Maintenance Log**  
**Former Albion Shell, 3300 Highway 1 North, Albion, California**

**Page 2 of 4**

<b>Panel</b>	<b>Date</b>	<b>Comments</b>
T-2	08/27/04 *	Pre-ozone microsparging baseline measurements
	11/1-2/04	System startup
	11/3/04	Check system pressures; install relay wire; disconnect ozonator intake hose from bottom of panel
	11/12/04	Panel running; check for panel and sparge point leaks
	11/18/04	Panel running; check for panel and sparge point leaks
	12/16-17/04 *	System down and unplugged; check system clock and restart
	01/21/05	Panel running; low system pressures; replace #9 solenoid; clean intake tube; check pressures and for leaks
	02/15/05	System running (reported outage and system restart)
	03/02/05	System bubbling at surface; reduced run times to 52.38% of original run times
	03/30/05 *	System running; check for leaks
	04/29/05	System running; vacuum sediment from cabinet, reprogram timer to run 7 minutes run times on all sparge points
	05/31/05	System running; check system pressures, clean out inlet
	06/22/05 *	System running; dismantle compressor and replace piston; check pressures; clean out panel; replace main power switch; lower fan will need replacing (running slowly)
	08/31/05	System running; rewire panel for auto start-up (two transformers and relay); clean out intake and compressors
	09/30/05 *	System running; reprogram timer; open and clean out compressor and intake. Needs new piston. Pressure check; tighten all wire blocks.
	10/27/05	System running; open compressor, replace piston, clean out panel
	11/29/05	System running; replace bad manifold pressure tank, pressure check system, replace in-fan filter
	12/29/05 *	System running; open compressor, replace worn piston, reinstall and pressure check
	01/31/06	System running; check pressures and clean intakes
	03/30/06 *	System down; reset timer; check pressures and compressor; reverse cylinder; clock: 7671.74

**Table 6. Ozone System Operations and Maintenance Log**  
**Former Albion Shell, 3300 Highway 1 North, Albion, California**

Page 3 of 4

Panel	Date	Comments
EXC	11/03/04	3 <sup>rd</sup> day system check; check for leaks; jumper wire for relays installed; remove ozonator input hose from bottom of panel
	11/12/04	Panel running; check pressures and for leaks in panel and sparge points
	12/16-17/04 *	System down on 16th; ozone sensor tripped; restart system; check pressures and for leaks;
	01/21 & 01/24/05	System running on 01/21/05; repair ozone leaks and set boxes to final grade; re-grout SP-6; replace bottom fan short
	02/15/05	Panel running (reported outage and system restart); clean station #5 solenoid switch; station #4 line leak between panel and SP; reprogram panel to 0 run time on station #4; order replacement hose
	03/02/05	System bubbling at surface; reduced run times to 52% of original run time; leak in SP-2 into secondary containment - reduce run time to 0 (from 2/15/05)
	03/30/05 *	System running; adjust ozone sensor; check for leaks; burnt wire to be replaced
	04/29/05	System down; rewire panel, reprogram timer to 10 minute run time on all sparge points except #4; leak in delivery line; clean out vacuum panel; solenoid sticking, clean out manifold
	05/31/05	System running; clean inlet tube, check pressures; turn up run times on 7 stations; maximum run times (11 minutes) on all stations except #4 (1 minute)
	06/22/05 *	System down; ozone sensor out (reordered); dismantle compressor and replace piston; check pressures; station #4 (SP-2) turned off - all others at 11 minute run times; no ozone nor FHCs detected in ozone meter station and deli building
	08/31/05	System down; burned wires (main power switch at wire block [GFI neutral] and wire block to the right of latch relay [red wire]); replace large block and order small block by latch; splice red wire temporarily; rewire panel for auto start-up (two transformers and relay)
	09/30/05 *	System running; open and clean out compressor and intake. Needs new piston. Pressure check; check all wire blocks. Replace far right wire block, lower fan, and red light bulb in door. Needs intake filter.
	10/27/05	System running; open compressor, change piston and flip cylinder, install pressure check
	11/29/05	System running; clean out panel, pressure check system

**Table 6. Ozone System Operations and Maintenance Log**  
**Former Albion Shell, 3300 Highway 1 North, Albion, California**

**Page 4 of 4**

<b>Panel</b>	<b>Date</b>	<b>Comments</b>
EXC continued	12/29/05 *	System running; open compressor, replace worn piston, pressure check
	01/31/06	System running; damaged line in trench; run conduit to back of station
	03/27/06	Dig out 4 well boxes and cut to below new subgrade level; remove well boxes and backfill with sand; run new conduit for SP-2 to panel and install tubing; restart SP-2; bury iron next to wells for future locating with metal detector
	03/30/06 *	System running; reverse check valve on station #4 (SP-2); check pressures, piston and cylinder; clock: 7571.44

\*: Combined O&M and quarterly sampling event

0302/table 6 O&M

## **Appendix A**

### **Groundwater Field Logs**

# DAILY FIELD RECORD

Page 1 of 1

Project and Task Number:	0302	Date:	3/30/06
Project Name:	ALBION SHELL	Field Activity:	QUARTERLY GROUNDWATER
Location:	3300 N Hwy #1	Weather:	MONITORING
Time of OVM Calibration:			

PERSONNEL			
Name	Company	Time In	Time Out
CHRIS J Rooney	ECTA	6	6
		6	6

DRUMMED	DISPOSED	REMOVED	STANDARD	LOCATION
2	\$25' DRUMS			
6	DRUMS H <sub>2</sub> O			

TIME	LOAD ORDER	MW-1 3.39
	DEPART , ON SITE , open all wells	MW-2 2.67
	SET UP / DECOD , TAKE DTW'S →	
	CAT GWF LOGS 3 BEGIN PUMPING	
	wells IN ORDER . ALLOW TIME	MW-5 6.51
	FOR RECORDER . TAKE POST PUMP	MW-6 5.68
	DTW'S .	MW-7 3.75
	COLLECT SAMPLES IN ORDER	MW-8 8.35
	CLOSE 3 ROCK WELL	MW-9 2.74
	CLEAN UP SITE	MW-10 4.81
	DEPART	MW-11 4.67
		MW-12 5.34
		MW-13 5.34
		MW-14 7.67
		MW-15 ARTESIAN
		MW-16 2.10
	well box → MW-17 1.37	
	CUT OUT FOR PAVING	MW-18 3.07

**FIELD LOG**

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: MW-1			
Global ID: TO604500291	Well depth from TOC: 11 + 3 = 14			
Project location: 3300 N Hwy #1	Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 3-30-06	Product level from TOC: NO			
Time: 8:00	Water level from TOC: 3.39			
Recorded by: Rodney	Screened interval: 4-10 BGS			
Purge time (duration):	Well elevation (TOC): 159.35			

**WEATHER**

Wind: 0 - 20 mph Precip. in last 5 days: Yes

**VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING**

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 2.61	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.29
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 3.9 Well volumes removed: 3

**CALIBRATION**

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

**FIELD MEASUREMENTS**

Time	pH	EC	Temp °F	ORP mV	D.O. mg/l	Case Volume gal.	Appearance
6.96	419.1			-42		1/ 1.3	
6.80	422.6			-34		2/ 2.6	
6.79	415.3	55.2		-22	1.19	3/ 3.9'	
						/	

Notes:

Water level after purging below TOC: 80% of original water level below TOC: Yes

Water level before sampling below TOC: 3.45

Appearance of sample:

Time: 11:30

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible	GPM: 1-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse	
Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> 7 oxygenates <input type="checkbox"/> Lead scavengers <input type="checkbox"/> VOCs <input type="checkbox"/> Nitrates
EPA Method:				
Other:	MTBE	8021		

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: MW-2			
Global ID: T0604500291	Well depth from TOC: 15			
Project location: 3302 N Hwy #1	Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 3/30/06	Product level from TOC: ND			
Time: 8:00	Water level from TOC: 2,67			
Recorded by: Rodney	Screened interval: 5-15'			
Purge time (duration):	Well elevation (TOC): 149.89			

WEATHER

Wind: 0 - 20 mph	Precip. in last 5 days: Yes
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 12.33	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 2.09
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 5 Well volumes removed: 2

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
6.68	185.1	54.4	-49	58	1/2	Low turbidity, no odor, no shear	
6.70	1330	56.8	-93	2.45	2/4		
					3/6		
					1		

Notes: Dry At 5 gallons

Water level after purging below TOC: 80% of original water level below TOC: Yes

Water level before sampling below TOC: 2.70

Appearance of sample:

Time: 2:50

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible	1 GPM
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse	

Sample analysis:  TPHg  TPHd  TPH  BTEX  7 oxygenates  Lead scavengers  VOCs  Nitrates

EPA Method:

Other:  TOTAL BROMATE, Bromide, Disolved Selenium, Molybdenum, Vanadium, and Hexachrome

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302		Field point name: MW-S		
Global ID: T0604500291		Well depth from TOC: 15		
Project location: 3300 N Hwy #1		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 3/30/06		Product level from TOC: 15		
Time: 8:00		Water level from TOC: 6.51		
Recorded by: Rodney		Screened interval: 5-15		
Purge time (duration):		Well elevation (TOC): 146.09		

WEATHER

Wind: 0 - 20 mph Precip. in last 5 days: Yes

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 8.49	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1,44	
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 6	Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
6/1	297.7	55.9	121		1/ 2	LOW TURB NO CDR	
6/6	276.5	55.9	181		2/ 4	NO SHEEN	
5/28	277.2	55.9	184	1.25	3/ 6		
					/		

Notes: HANDBAIL NO well

Water level after purging below TOC: 80% of original water level below TOC: Yes

Water level before sampling below TOC: 6.6'

Appearance of sample: Time: 1:00

Bailer: Type: UOSS GPM: 1/2  Pump: ES-40 Type: Submersible GPM: 1/2

Dedicated: Type: GPM: Decontamination method: Liquinox wash, double rinse

Sample analysis:  TPHg  TPHd  TPH  BTEX  7 oxygenates  Lead scavengers  VOCs  Nitrates

EPA Method:

Other:  MTBE 8021

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302		Field point name: MW-6		
Global ID: T0604500291		Well depth from TOC: 15'		
Project location: 3302 N Hwy #1		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 3-30-06		Product level from TOC:		
Time: 8:00		Water level from TOC: 5.68		
Recorded by: Rodney		Screened interval: S-15		
Purge time (duration):		Well elevation (TOC): 142.19		

WEATHER

Wind: 0 - 20 mph	Precip. in last 5 days: Yes
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 9.32	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.58
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 5 Well volumes removed: 2

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
6.21	207.2	55.7	117	1.82	1/ 2		Low turbidity, no odor, no shear
6.24	247.1	56.9	52	2.19	2/ 4		
					3/ 6		
					1		

Notes:

Dry At 5

Water level after purging below TOC: 0' 0" 80% of original water level below TOC: Yes

Water level before sampling below TOC: 5.70

Time: 3:00

Appearance of sample:

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible	GPM: 1-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse	

Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
------------------	--	-------------------------------	------------------------------	--	--	--	-------------------------------	-----------------------------------

EPA Method:

Other: <input checked="" type="checkbox"/> TOTAL BROMATE, BROMITE, DISSOLVED Seleniun, Molybdenum, Vanadium, AND HEXACHLORINE
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LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302		Field point name: MW-7		
Global ID: TOBO 4500 291		Well depth from TOC: 12 + 3 - 15		
Project location: 3300 N Hwy #1		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 3-30-06		Product level from TOC: NO		
Time: 8:00		Water level from TOC: 3.75		
Recorded by: Rodney		Screened interval: 5-15 BGS		
Purge time (duration):		Well elevation (TOC): 142.10		

WEATHER

Wind: 0 - 20 mph	Precip. in last 5 days: Yes
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 11.25	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.91
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 6 Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC µS	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
~	1024	543	14	1.74	1/ 2		low turb no odor no stain
-	1030	53.6	19	1.18	2/ 4		
-	970.8	53.4	26	.86	3/ 6		

Notes:

Water level after purging below TOC: 80% of original water level below TOC: Yes

Water level before sampling below TOC: 3.78 Time: 1:50

Appearance of sample:

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible	GPM: 1-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse	

Sample analysis:  TPHg  TPHd  TPH  BTEX  7 oxygenates  Lead scavengers  VOCs  Nitrates

EPA Method:

Other:

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: MW-8			
Global ID: T0604500291	Well depth from TOC: 145 + 3 = 17.5			
Project location: 3300 N Hwy #1	Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 3/30/06	Product level from TOC: ND			
Time: 8:00	Water level from TOC: 8.35			
Recorded by: Rodney	Screened interval: 5-15 BGS			
Purge time (duration):	Well elevation (TOC): 145.69			

WEATHER

Wind: 0 - 20 mph	Precip. in last 5 days: Yes
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 6.15	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.04
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 3 Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
6.15	213.9			126		1/ 1	low turbidity
6.01	204.4			144		2/ 2	no odor
5.97	201.6	54.9		156	3.09	3/ 3	no sheen
						/	

Notes:

Water level after purging below TOC: 8.42 80% of original water level below TOC: Yes

Water level before sampling below TOC: 8.42

Appearance of sample:

Time: 1110

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible	1-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse	

Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input type="checkbox"/> 7 oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
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EPA Method:

Other: MTBE 8021

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: MW-9			
Global ID: TO604500291	Well depth from TOC: 20+3=23			
Project location: 3300 N Hwy #1	Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 3/30/06	Product level from TOC: ND			
Time: 8:00	Water level from TOC: 2.74			
Recorded by: Rodney	Screened interval: 5-20 Bys			
Purge time (duration):	Well elevation (TOC): 136.42			

WEATHER

Wind: 0 - 20 mph	Precip. in last 5 days: Yes
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 17.26	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 2.93
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 9 Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
7.20	231.7	54.0	101	.84	1/ 3	Low TDS NO ODOR NO STAIN	
7.17	225.6	54.2	118	.71	2/ 6		
6.86	223.6	54.3	123	.87	3/ 9		
					1		

Notes:

Water level after purging below TOC:	80% of original water level below TOC: 1.75
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Water level before sampling below TOC: 2.80	Time: 1:40
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Appearance of sample:	
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<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible	GPM: 1/2
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<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse
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Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> 7 oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
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EPA Method:							
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Other:						
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LABORATORY:	<input checked="" type="checkbox"/> McCampbell Analytical	<input type="checkbox"/> Other:
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FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: MW-10			
Global ID: T0604500291	Well depth from TOC: 18			
Project location: 3300 N Hwy #1	Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 3-30-06	Product level from TOC: NO			
Time: 8:00	Water level from TOC: 4.81			
Recorded by: Rodney	Screened interval: 5-15			
Purge time (duration):	Well elevation (TOC): 127.13			

WEATHER

Wind: 0 - 20 mph Precip. in last 5 days: Yes

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 13.19	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 2.24
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 6 Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
	64.0	55.2	12	53	1/2	low turb no opur	
	67.2	55.1	21	45	2/4	NO SHDN	
	68.1	55.1	25	1.44	3/6		

Notes:

Water level after purging below TOC: 80% of original water level below TOC: Yes

Water level before sampling below TOC: 4.89

Appearance of sample:

Time: 2:40

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible	GPM: 1-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse	
Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> 7 oxygenates <input type="checkbox"/> Lead scavengers <input type="checkbox"/> VOCs <input type="checkbox"/> Nitrates
EPA Method:				

Other:

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: MW-11			
Global ID: T0604500291	Well depth from TOC: 9 + 3 = 12			
Project location: 3300 N Hwy #1	Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 3-30-06	Product level from TOC: NO			
Time: 8:00	Water level from TOC: 4.67			
Recorded by: Rodney	Screened interval: 4 - 9 BGS			
Purge time (duration):	Well elevation (TOC): 115.71			

WEATHER

Wind: 0 - 20 mph Precip. in last 5 days: Yes

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 4.33	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1.73
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 1+ Well volumes removed: 2

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
-	457.1	53.6	78	1.64	1/.8	low TURB NO CAR	
	459.0	53.9	78	1.59	2/1.6	NO SHEEN	
					3/2.4		
					/		

Notes:

RAN DRY AT 1+ gal

Water level after purging below TOC: DRY 80% of original water level below TOC: ✓

Water level before sampling below TOC: 4.8

Appearance of sample: Time: 2:20

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible	GPM: 1-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse	

Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> 7 oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
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EPA Method:								
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Other:								
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LABORATORY:	<input checked="" type="checkbox"/> McCampbell Analytical	<input type="checkbox"/> Other:
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FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: MW-12			
Global ID: TOBO4500291	Well depth from TOC: 20 + 3 = 23			
Project location: 3302 N Hwy #1	Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 3-30-06	Product level from TOC: NO			
Time: 8:00	Water level from TOC: 5.34			
Recorded by: Rodney	Screened interval: 5-20 BGS			
Purge time (duration):	Well elevation (TOC): 136.36			

WEATHER

Wind: 0 - 20 mph	Precip. in last 5 days: Yes
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 14.66	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 2.49
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 5 Well volumes removed: 2+

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
6.36	425.9		138.		1/ 3	CONTARS	NO color
6.29	500.1		147		2/ 25		NO SKIN
6.26	490.4	55.1	152	1.89	3/ 5.		

Notes: HAND BAIL well prior to collecting sample

Water level after purging below TOC:	80% of original water level below TOC: 4
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Water level before sampling below TOC:	5.5
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Appearance of sample:	Time: 1:20
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<input checked="" type="checkbox"/> Bailer:	Type:	GPM: 1-2	<input checked="" type="checkbox"/> Pump: ES-44 Type: Submersible	GPM: 1-2
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<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		
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Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
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EPA Method:								
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Other:								
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LABORATORY:	<input checked="" type="checkbox"/> McCampbell Analytical	<input type="checkbox"/> Other:
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FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT			
Project No: 0302		Field point name: MW-13					
Global ID: TOBO 4500 291		Well depth from TOC: 24 + 3					
Project location: 3300 N Hwy #1		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:					
Date: 3-30-06		Product level from TOC:					
Time: 8:00		Water level from TOC: 5,34					
Recorded by: 1		Screened interval: 19-24 Bgs					
Purge time (duration):		Well elevation (TOC): 126,71					
WEATHER							
Wind: 0 - 20 mph	Precip. in last 5 days: Yes						
VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING							
<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 18.66	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 3,17					
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 5		Well volumes removed: 1+			
CALIBRATION							
Parameter	Time	Calibration	Before Sampling	Time			
EC:							
FIELD MEASUREMENTS							
Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
	798.8	55	-0	3,93	1/ 3,2	(UN TURB	No sput
					2/ 6	NO SHEEN)	
					3/ 9		
					/		
Notes: RAN DRY AT 5 GAL							
Water level after purging below TOC: DRY		80% of original water level below TOC:				Yes	
Water level before sampling below TOC: 5.5						Time: 2:30	
Appearance of sample:							
<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible			GPM: 1-2	
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse				
Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHe	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> 7 oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs
EPA Method:							
Other:							
LABORATORY: <input checked="" type="checkbox"/> McCampbell Analytical	<input type="checkbox"/> Other:						

**EDD CLARK & ASSOCIATES, INC.**  
ENVIRONMENTAL CONSULTANTS

**FIELD LOG**

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: MW-14			
Global ID: T0604500291	Well depth from TOC: 31.5 + 3 = 34.5			
Project location: 3300 N Hwy #1	Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 3/30/06	Product level from TOC: ND			
Time: 8:00	Water level from TOC: 7.67			
Recorded by: CHS	Screened interval: 30-34.5 BGS			
Purge time (duration):	Well elevation (TOC): 141.67'			

**WEATHER**

Wind: 0 - 5 mph	Precip. in last 5 days: Yes
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**VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING**

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 2283	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 4.05
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 5 Well volumes removed: 1 1/2

**CALIBRATION**

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

**FIELD MEASUREMENTS**

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
	7.34.5	55.2	525	4.48	1/4	Low TURB NO ODOR NO SICKEN	
					2/8		
					3/12		
					1	Dry At Sg Ar	

Notes:

Water level after purging below TOC: Dry 80% of original water level below TOC: 9

Water level before sampling below TOC: 12 Time: 2:00

Appearance of sample:

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible	GPM: 1-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse	

Sample analysis:  TPHg  TPHd  TPH  BTEX  7 oxygenates  Lead scavengers  VOCs  Nitrates

EPA Method:

Other:

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302		Field point name: MW-15		
Global ID: TOBO 4500 291		Well depth from TOC: 13		
Project location: 3300 N Hwy #1		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 3-30-06		Product level from TOC: ND		
Time: 8:00		Water level from TOC: +1,5" ARTESIAN		
Recorded by: Rodney		Screened interval: 5-13		
Purge time (duration):		Well elevation (TOC): 148,10		

WEATHER

Wind: 0 - 20 mph	Precip. in last 5 days: Yes
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 13	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 2.21
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 5 Well volumes removed: 2

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
6.77	2013	544	-6	1.40	1/ 2.2	Low TURB HC odor	
6.67	1985	538	-73	1.05	2/ 1.4	NO SIGHT	
					3/ 6.6		
					1		

Notes: DRY A 5

water level in well ARTESIAN

Water level after purging below TOC: Dry	80% of original water level below TOC: Yes
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Water level before sampling below TOC: 1

Appearance of sample: Time: 3:30

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40	Type: Submersible	GPM: 1-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:  TPHg  TPPhd  TPH  BTEX  7 oxygenates  Lead scavengers  VOCs  Nitrates

EPA Method:

Other:  TOTAL BROMATE/Bromide, DISOLVED Selenium, Molybdenum, Vanadium and Hexachrome

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302			Field point name: MW-16	
Global ID: T0604500291			Well depth from TOC: 15	
Project location: 3300 N Hwy #1			Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:	
Date: 3-30-06			Product level from TOC: Sheen	
Time: 8:00			Water level from TOC: 2.10	
Recorded by: Rodney			Screened interval: 5-15	
Purge time (duration):			Well elevation (TOC): 153-50	

WEATHER

Wind: 0 - 20 mph	Precip. in last 5 days: Yes
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 12.90	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 2,19
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 6.6 Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
6.69	1362	56.4	-70	1.34	1/ 2.2	low turbidity	
6.70	1424	56.0	-73	1.06	2/ 4.4	med	order
6.69	1403	56.8	-74	.72	3/ 6.6		

Notes:

Water level after purging below TOC: 80% of original water level below TOC: Yes

Water level before sampling below TOC: 2.18

Appearance of sample:

Time: 3:20

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible	GPM: 1-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse	

Sample analysis:  TPHg  TPHd  TPH  BTEX  7 oxygenates  Lead scavengers  VOCs  Nitrates

EPA Method:

Other:  TOTAL BROMATE 3 Bromide, DISSOLVED Seleniun, Molybdenum, Vanadium, AND HEXACHROME

LABORATORY:  McCampbell Analytical  Other:

FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302		Field point name: MW-17		
Global ID: T0604500291		Well depth from TOC: 13		
Project location: 3302 N Hwy #1		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date: 3/30/06		Product level from TOC: 1 MD		
Time: 8:00		Water level from TOC: 1.37 Cut case		
Recorded by: CHRIS S		Screened interval: 5-13		
Purge time (duration):		Well elevation (TOC): 157.51		

WEATHER

Wind: 0 - 20 mph Precip. in last 5 days: Yes

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft 11.70	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume: 1,18
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: 6 Well volumes removed: 3

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
-	648.3	56.3	58	3.50	1/ 2		LOW TURB NO SCREEN
	651.3	56.4	60	1.54	2/ 4		NO ODO
	604.5	56.3	60	2.32	3/ 6		
					1		

Notes: well Box cut down for PAVING DO NOT USE DTW measurement TO CALCULATE GRADIENT

Water level after purging below TOC: Same 80% of original water level below TOC: y

Water level before sampling below TOC: 1.5

Appearance of sample: Time: 2:00

<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible	GPM: 1-2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse	

Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHe	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> 7 oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
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EPA Method:								
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Other: <input checked="" type="checkbox"/> TOTAL BROMATE/BROMITE, DISOLVED SeleniUM, molybdenum, vanadium AND hexachrome								
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LABORATORY: <input checked="" type="checkbox"/> McCampbell Analytical	<input type="checkbox"/> Other:							
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FIELD LOG

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT			
Project No: 0302		Field point name: MW-18					
Global ID: T0604500291		Well depth from TOC: 16					
Project location: 3300 N Hwy #1		Well diameter: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:					
Date: 3-30-06		Product level from TOC: ND					
Time: 8:00		Water level from TOC: 2.07					
Recorded by: Rodney		Screened interval: 5-16					
Purge time (duration):		Well elevation (TOC): 146.64					
WEATHER							
Wind: 0 - 20 mph		Precip. in last 5 days: Yes					
VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING							
<input checked="" type="checkbox"/> 2" well = 0.17 gal/ft [3,93]		<input type="checkbox"/> 6" well = 1.47 gal/ft		Gallons in 1 well volume: 236			
<input type="checkbox"/> 4" well = 0.66 gal/ft		<input type="checkbox"/> " well = gal/ft		Total gallons removed: 7.2 Well volumes removed: 3			
CALIBRATION							
Parameter	Time	Calibration	Before Sampling	Time			
EC:							
FIELD MEASUREMENTS							
Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
6.97	1221	56.5	76	-76	.64	1/ 2.4	Low turbidity
6.80	1216	56.4	75	-75	.73	2/ 4.8	med odor
6.81	1192	52.2	-69	-69	.34	3/ 7.2	no smell
						1	
Notes:							
Water level after purging below TOC:			80% of original water level below TOC: Yes				
Water level before sampling below TOC: 2.10							
Time: 3:10							
Appearance of sample:							
<input type="checkbox"/> Bailer:	Type:	GPM:	<input checked="" type="checkbox"/> Pump: ES-40 Type: Submersible			GPM: 1-2	
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse				
Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs
EPA Method:							<input type="checkbox"/> Nitrates
Other:	TOTAL BROMATE, BROMITE, DISOLVED Selenium, Molybdenum, Vanadium, AND HEXACHLORINE						
LABORATORY:	<input checked="" type="checkbox"/> McCampbell Analytical		<input type="checkbox"/> Other:				

**FIELD LOG**

<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> SURFACE WATER	<input checked="" type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: DW			
Global ID: T0604500291	Well depth from TOC:			
Project location: 3300 N Hwy #1	Well diameter: " <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 3/30/06	Product level from TOC:			
Time: 8:00	Water level from TOC:			
Recorded by: CHHS 5	Screened interval:			
Purge time (duration):	Well elevation (TOC):			

**WEATHER**

Wind: 0 - 20 mph Precip. in last 5 days: Yes

**VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING**

<input type="checkbox"/> 2" well = 0.17 gal/ft	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume:	
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed:	Well volumes removed:

**CALIBRATION**

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

**FIELD MEASUREMENTS**

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
						1/	
						2/	
						3/	
						/	

Notes: RUN PUMP FOR 15 min PRIOR TO COLLECTING SAMPLE  
COLLECT SAMPLE FROM HOSE BIB BY PUMP HOUSE  
NW OF RESIDENCE

Water level after purging below TOC: 80% of original water level below TOC: 10

Water level before sampling below TOC:

Appearance of sample: Time: 3:35

Bailer: Type: GPM: Pump: ES- Type: Submersible GPM: \_\_\_\_\_

Dedicated: Type: GPM: 8-10 Decontamination method: Liquinox wash, double rinse

Sample analysis:  TPHg  TPHd  TPH  BTEX  7 oxygenates  Lead scavengers  VOCs  Nitrates

EPA Method: \_\_\_\_\_

Other: \_\_\_\_\_

LABORATORY:  McCampbell Analytical  Other:

## **FIELD LOG**

## DUCK POND

<input type="checkbox"/> GROUNDWATER	<input checked="" type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No:	0302		Field point name:	DP
Global ID:	T0604S00291		Well depth from TOC:	
Project location:	3300 N Hwy #1		Well diameter:	<input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:
Date:	3/30/06		Product level from TOC:	
Time:	8:00		Water level from TOC:	
Recorded by:	Chris S		Screened interval:	
Purge time (duration):			Well elevation (TOC):	

WEATHER

Wind: 0 - 20 mph | Precip. in last 5 days: Yes

**VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING**

<input type="checkbox"/> 2" well = 0.17 gal/ft	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume:		
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well =                    gal/ft	Total gallons removed:	Well volumes removed:	

## **CALIBRATION**

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

## FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
					1/		
					2/		
					3/		
					/		

Notes: collect sample from NW corner of pond

Digitized by srujanika@gmail.com

Water level after purging below TOC: \_\_\_\_\_ 80% of original water level below TOC: \_\_\_\_\_

Water level before sampling below TOC:

Time: 3:45

### Appearance of sample:

<input type="checkbox"/> Bailer:	Type:	GPM:	<input type="checkbox"/> Pump: ES-	Type: Submersible	GPM: 1 - 2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		

Sample analysis:  TPHg  TPHd  TPH  BTEX  7 oxygenates  Lead scavenger

#### EPA Method:

Other:

FIELD LOG

DUCK POND DRAINAGE

<input type="checkbox"/> GROUNDWATER	<input checked="" type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No: 0302	Field point name: SW-1			
Global ID: T0604500291	Well depth from TOC:			
Project location: 3300 N Hwy #1	Well diameter: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:			
Date: 3/30/06	Product level from TOC:			
Time: 8:00	Water level from TOC:			
Recorded by: CHRIS J	Screened interval:			
Purge time (duration):	Well elevation (TOC):			

WEATHER

Wind: 0 - 20 mph	Precip. in last 5 days: Yes
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VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input type="checkbox"/> 2" well = 0.17 gal/ft	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume:
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed: Well volumes removed:

CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
					1/		
					2/		
					3/		
					/		

Notes: collect sample SE of MW 10 & MW-13 Below Dam Area

DRAINAGE FLOWING 70 - 150 gal per min

Water level after purging below TOC:	80% of original water level below TOC:
--------------------------------------	--

Water level before sampling below TOC:
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Appearance of sample:	Time: 2:25
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<input type="checkbox"/> Bailer:	Type:	GPM:	<input type="checkbox"/> Pump: ES-	Type: Submersible	GPM: 1 - 2
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<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse		
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Sample analysis:	<input checked="" type="checkbox"/> TPHg	<input type="checkbox"/> TPHd	<input type="checkbox"/> TPH	<input checked="" type="checkbox"/> BTEX	<input checked="" type="checkbox"/> 7 oxygenates	<input type="checkbox"/> Lead scavengers	<input type="checkbox"/> VOCs	<input type="checkbox"/> Nitrates
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QA Method:
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Other:
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LABORATORY:	<input checked="" type="checkbox"/> McCampbell Analytical	<input type="checkbox"/> Other:
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## FIELD LOG

MW-73 MW-14

DRAINAGE

<input type="checkbox"/> GROUNDWATER	<input checked="" type="checkbox"/> SURFACE WATER	<input type="checkbox"/> DOMESTIC WATER	<input type="checkbox"/> IRRIGATION WATER	<input type="checkbox"/> WELL DEVELOPMENT
Project No:	0302	Field point name: SW-4		
Global ID:	T0604500291	Well depth from TOC:		
Project location:	3300 N Hwy #1	Well diameter: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> Other:		
Date:	3/30/06	Product level from TOC:		
Time:	8:00	Water level from TOC:		
Recorded by:	Chris S	Screened interval:		
Purge time (duration):		Well elevation (TOC):		

## WEATHER

Wind: 0 - 20 mph	Precip. in last 5 days: Yes
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## VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

<input type="checkbox"/> 2" well = 0.17 gal/ft	<input type="checkbox"/> 6" well = 1.47 gal/ft	Gallons in 1 well volume:
<input type="checkbox"/> 4" well = 0.66 gal/ft	<input type="checkbox"/> " well = gal/ft	Total gallons removed:
		Well volumes removed:

## CALIBRATION

Parameter	Time	Calibration	Before Sampling	Time	After Sampling
EC:					

## FIELD MEASUREMENTS

Time	pH	EC	Temp °F	ORP mV	D O mg/l	Case Volume gal.	Appearance
						1/	
						2/	
						3/	
						/	

Notes: collect sample  $\approx$  10 ft north of MW-14

Water level after purging below TOC:	80% of original water level below TOC:		
Water level before sampling below TOC:			
Appearance of sample:			
Time: 2:05			
<input type="checkbox"/> Bailer:	Type:	GPM:	<input type="checkbox"/> Pump: ES- Type: Submersible GPM: 1 - 2
<input type="checkbox"/> Dedicated:	Type:	GPM:	Decontamination method: Liquinox wash, double rinse
Sample analysis:	<input checked="" type="checkbox"/> TPH <sub>g</sub>	<input type="checkbox"/> TPH <sub>d</sub>	<input type="checkbox"/> TPH <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> 7 oxygenates <input type="checkbox"/> Lead scavengers <input type="checkbox"/> VOCs <input type="checkbox"/> Nitrates
SPA Method:			
Other:			
LABORATORY:	<input checked="" type="checkbox"/> McCampbell Analytical <input type="checkbox"/> Other:		

# **Appendix B**

## **Analytical Laboratory Report**

APR 12 2006

BY:

 McCampbell Analytical, Inc.	110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone : 925-798-1620 Fax : 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com
---	---

Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 03/30/06
		Date Received: 03/31/06
	Client Contact: Chris Janiszewski	Date Reported: 04/07/06
	Client P.O.:	Date Completed: 04/07/06

WorkOrder: 0603682

April 07, 2006

Dear Chris:

Enclosed are:

- 1). the results of 20 analyzed samples from your #0302; Albion Shell project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,



Angela Rydelius, Lab Manager



## **McCampbell Analytical, Inc.**

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Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 03/30/06
		Date Received: 03/31/06
	Client Contact: Chris Janiszewski	Date Extracted: 04/01/06-04/05/06
	Client P.O.:	Date Analyzed: 04/01/06-04/05/06

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\***

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0603682

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in ug/wipe, product/oil/non-aqueous liquid samples in mg/L.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.


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Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 03/30/06
		Date Received: 03/31/06
	Client Contact: Chris Janiszewski	Date Extracted: 04/01/06-04/03/06
	Client P.O.:	Date Analyzed: 04/01/06-04/03/06

**Oxygenated Volatile Organics by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0603682

Lab ID	0603682-001A	0603682-002A	0603682-003A	0603682-004A	Reporting Limit for DF =1	
Client ID	MW-1	MW-2	MW-5	MW-6		
Matrix	W	W	W	W	ug/kg	μg/L
DF	1	200	1	100	S	W
Compound	Concentration					
tert-Amyl methyl ether (TAME)	ND	ND<100	ND	ND<50	NA	0.5
t-Butyl alcohol (TBA)	ND	ND<1000	ND	ND<500	NA	5.0
Diisopropyl ether (DIPE)	ND	ND<100	ND	ND<50	NA	0.5
Ethanol	ND	ND<10,000	ND	ND<5000	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND<100	ND	ND<50	NA	0.5
Methanol	ND	ND<100,000	ND	ND<50,000	NA	500
Methyl-t-butyl ether (MTBE)	ND	5600	0.86	2300	NA	0.5
Surrogate Recoveries (%)						
%SS1:	103	103	103	102		
Comments						

\* water and vapor samples are reported in μg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in μg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.


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Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 03/30/06
		Date Received: 03/31/06
	Client Contact: Chris Janiszewski	Date Extracted: 04/01/06-04/03/06
	Client P.O.:	Date Analyzed: 04/01/06-04/03/06

**Oxygenated Volatile Organics by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0603682

Lab ID	0603682-005A	0603682-006A	0603682-007A	0603682-008A	Reporting Limit for DF =1
Client ID	MW-7	MW-8	MW-9	MW-10	
Matrix	W	W	W	W	
DF	1	1	1	20	S W

Compound	Concentration				µg/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND<10	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND	ND<100	NA	5.0
Diisopropyl ether (DIPE)	ND	ND	ND	ND<10	NA	0.5
Ethanol	ND	ND	ND	ND<1000	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND<10	NA	0.5
Methanol	ND	ND	ND	ND<10,000	NA	500
Methyl-t-butyl ether (MTBE)	19	ND	ND	630	NA	0.5

**Surrogate Recoveries (%)**

%SS1:	103	103	105	104	
Comments					

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



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Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 03/30/06
		Date Received: 03/31/06
	Client Contact: Chris Janiszewski	Date Extracted: 04/01/06-04/03/06
	Client P.O.:	Date Analyzed: 04/01/06-04/03/06

**Oxygenated Volatile Organics by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0603682

Lab ID	0603682-009A	0603682-010A	0603682-011A	0603682-012A	Reporting Limit for DF =1	
Client ID	MW-11	MW-12	MW-13	MW-14		
Matrix	W	W	W	W	S	W
DF	1	1	2.5	1		
Compound	Concentration				ug/kg	μg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND<1.2	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	18	ND	NA	5.0
Diisopropyl ether (DIPE)	ND	ND	ND<1.2	ND	NA	0.5
Ethanol	ND	ND	ND<120	ND	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<1.2	ND	NA	0.5
Methanol	ND	ND	ND<1200	ND	NA	500
Methyl-t-butyl ether (MTBE)	ND	ND	67	43	NA	0.5
Surrogate Recoveries (%)						
%SSI:	104	108	106	104		
Comments						

\* water and vapor samples are reported in μg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in μg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



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		Date Received: 03/31/06
	Client Contact: Chris Janiszewski	Date Extracted: 04/01/06-04/03/06
	Client P.O.:	Date Analyzed: 04/01/06-04/03/06

**Oxygenated Volatile Organics by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0603682

Lab ID	0603682-013A	0603682-014A	0603682-015A	0603682-016A	Reporting Limit for DF =1	
Client ID	MW-15	MW-16	MW-17	MW-18		
Matrix	W	W	W	W		
DF	1000	2000	1	500	S W	
Compound	Concentration				ug/kg	μg/L
tert-Amyl methyl ether (TAME)	ND<500	ND<1000	ND	ND<250	NA	0.5
t-Butyl alcohol (TBA)	ND<5000	ND<10,000	ND	ND<2500	NA	5.0
Diisopropyl ether (DIPE)	ND<500	ND<1000	ND	ND<250	NA	0.5
Ethanol	ND<50,000	ND<100,000	ND	ND<25,000	NA	50
Ethyl tert-butyl ether (ETBE)	ND<500	ND<1000	ND	ND<250	NA	0.5
Methanol	ND<500,000	ND<1,000,000	ND	ND<250,000	NA	500
Methyl-t-butyl ether (MTBE)	17,000	40,000	1.6	11,000	NA	0.5
Surrogate Recoveries (%)						
%SS1:	100	100	104	101		
Comments						

\* water and vapor samples are reported in μg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in μg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



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Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 03/30/06
		Date Received: 03/31/06
	Client Contact: Chris Janiszewski	Date Extracted: 04/01/06-04/03/06
	Client P.O.:	Date Analyzed: 04/01/06-04/03/06

**Oxygenated Volatile Organics by P&T and GC/MS\***

Extraction Method: PRVOCMS\_W

Analytical Method: SW8260B

Work Order: 0603682

Lab ID	0603682-017A	0603682-018A	0603682-019A	0603682-020A	Reporting Limit for DF =1	
Client ID	DW-1	DP	SW-1	SW-4		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W
Compound	Concentration				ug/kg	ug/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND	ND	NA	5.0
Diisopropyl ether (DIPE)	ND	ND	ND	ND	NA	0.5
Ethanol	ND	ND	ND	ND	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND	NA	0.5
Methanol	ND	ND	ND	ND	NA	500
Methyl-t-butyl ether (MTBE)	ND	0.93	7.6	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	104	103	104	103		
Comments						

\* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in ug/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



## **McCAMPBELL ANALYTICAL, INC.**

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Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 03/30/06
		Date Received: 03/31/06
	Client Contact: Chris Janiszewski	Date Extracted: 03/31/06
	Client P.O.:	Date Analyzed: 04/04/06-04/05/06

## Inorganic Anions by IC\*

Analytical methods: E300.1

Work Order: 0603682

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.005	mg/L
	S	NA	NA

\* water samples are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# surrogate diluted out of range or surrogate coelutes with another peak; N/A means surrogate not applicable to this analysis.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high inorganic content; k) sample arrived with head space.



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Edd Clark & Associates, Inc.  320 Professional Center Ste. 215  Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 03/30/06
		Date Received: 03/31/06
	Client Contact: Chris Janiszewski	Date Extracted: 03/31/06
	Client P.O.:	Date Analyzed: 04/03/06

## Inorganic Anions by IC\*

#### Analytical methods: E300.1

Work Order: 0603682

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.1	mg/L
	S	NA	NA

\* water samples are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

# surrogate diluted out of range or surrogate coelutes with another peak; N/A means surrogate not applicable to this analysis.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted/raised due to high inorganic content/matrix interference; k) sample arrived with head space.



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Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 03/30/06
		Date Received: 03/31/06
	Client Contact: Chris Janiszewski	Date Extracted: 03/31/06
	Client P.O.:	Date Analyzed: 03/31/06

## **Hexachrome by IC\***

**Analytical Method: E218.6**

Work Order: 0603682

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 µg/L	
	S	NA	

\* water samples are reported in  $\mu\text{g/L}$ .

N/A means surrogate not applicable to this analysis; # surrogate diluted out of range or surrogate coelutes with another peak.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to matrix interference; p) see attached narrative.



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Edd Clark & Associates, Inc. 320 Professional Center Ste. 215 Rohnert Park, CA 94928	Client Project ID: #0302; Albion Shell	Date Sampled: 03/30/06
		Date Received: 03/31/06
	Client Contact: Chris Janiszewski	Date Extracted: 03/31/06
	Client P.O.:	Date Analyzed: 04/01/06

## Metals\*

Extraction method: E200.8

### Analytical methods: E200.8

Work Order: 0603682

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	DISS.	0.5	0.5	0.5	µg/L
	S	TTLC	NA	NA	NA	NA

\*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

# means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No. 1644

Angela Rydelius, Lab Manager



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## QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0603682

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 21065		Spiked Sample ID: 0603682-017B				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) <sup>£</sup>	ND	60	108	104	3.43	99.3	106	6.45	70 - 130	70 - 130
MTBE	ND	10	117	104	11.6	99.5	104	4.55	70 - 130	70 - 130
Benzene	ND	10	107	104	2.81	106	104	2.36	70 - 130	70 - 130
Toluene	ND	10	99.5	98.6	0.890	101	96.6	4.20	70 - 130	70 - 130
Ethylbenzene	ND	10	107	91.7	15.4	109	95.6	12.9	70 - 130	70 - 130
Xylenes	ND	30	100	100	0	100	100	0	70 - 130	70 - 130
%SS:	104	10	105	98	7.12	106	100	6.52	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

## BATCH 21065 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603682-002B	3/30/06	4/01/06	4/01/06 10:31 PM	0603682-002B	3/30/06	4/05/06	4/05/06 2:47 AM
0603682-004B	3/30/06	4/01/06	4/01/06 11:31 PM	0603682-004B	3/30/06	4/05/06	4/05/06 4:45 AM
0603682-008B	3/30/06	4/02/06	4/02/06 1:00 AM	0603682-008B	3/30/06	4/05/06	4/05/06 5:15 AM
0603682-011B	3/30/06	4/05/06	4/05/06 12:19 AM	0603682-013B	3/30/06	4/01/06	4/01/06 5:38 PM
0603682-014B	3/30/06	4/01/06	4/01/06 6:08 PM	0603682-016B	3/30/06	4/01/06	4/01/06 7:07 PM
0603682-017B	3/30/06	4/01/06	4/01/06 6:14 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer



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## QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0603682

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 21059			Spiked Sample ID: 0603675-017C		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	10	80.3	82	2.11	81.2	81.6	0.490	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	103	106	2.69	118	113	4.56	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	94.8	97.6	2.89	104	103	0.557	70 - 130	70 - 130
Ethanol	ND	500	90.9	105	14.7	106	105	1.06	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	84.9	89.1	4.81	93.3	92.1	1.22	70 - 130	70 - 130
Methanol	ND	2500	98	98.2	0.244	96.3	100	4.15	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	88.9	91.3	2.70	94.4	96	1.66	70 - 130	70 - 130
%SS1:	98	10	103	105	1.07	105	107	2.14	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 21059 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603682-001A	3/30/06 1:30 PM	4/01/06	4/01/06 4:52 AM	0603682-002A	3/30/06	4/01/06	4/01/06 12:14 PM
0603682-003A	3/30/06	4/01/06	4/01/06 6:17 AM	0603682-004A	3/30/06	4/03/06	4/03/06 1:45 PM
0603682-005A	3/30/06	4/01/06	4/01/06 7:41 AM	0603682-006A	3/30/06	4/01/06	4/01/06 12:26 PM
0603682-007A	3/30/06	4/01/06	4/01/06 1:09 PM	0603682-008A	3/30/06	4/01/06	4/01/06 6:28 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



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## QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0603682

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 21067			Spiked Sample ID: 0603682-020A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	10	81.2	81.2	0	80.3	81.6	1.61	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	97.8	105	6.81	99.3	101	1.30	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	93.6	94.4	0.865	92.8	91.7	1.13	70 - 130	70 - 130
Ethanol	ND	500	111	110	0.901	104	100	3.30	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	84.9	83.2	1.96	83.4	82.6	1.03	70 - 130	70 - 130
Methanol	ND	2500	100	97.6	2.48	97	99	2.09	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	87.6	86.8	0.889	84.5	86.3	2.15	70 - 130	70 - 130
%SS1:	103	10	102	102	0	105	103	1.72	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 21067 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603682-009A	3/30/06	4/01/06	4/01/06 2:34 PM	0603682-010A	3/30/06	4/01/06	4/01/06 3:37 PM
0603682-011A	3/30/06	4/03/06	4/03/06 8:00 PM	0603682-012A	3/30/06	4/01/06	4/01/06 7:11 PM
0603682-013A	3/30/06	4/03/06	4/03/06 5:09 PM	0603682-014A	3/30/06	4/03/06	4/03/06 5:51 PM
0603682-015A	3/30/06	4/03/06	4/03/06 6:34 PM	0603682-016A	3/30/06	4/03/06	4/03/06 7:17 PM
0603682-017A	3/30/06	4/01/06	4/01/06 5:11 PM	0603682-018A	3/30/06	4/01/06	4/01/06 5:53 PM
0603682-019A	3/30/06	4/01/06	4/01/06 6:35 PM	0603682-020A	3/30/06	4/01/06	4/01/06 7:18 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



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## QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0603682

EPA Method: E300.1		Extraction: E300.1			BatchID: 20959			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Bromate	N/A	0.040	N/A	N/A	N/A	103	110	6.17	N/A	90 - 115

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 20959 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603682-002C	3/30/06	3/31/06	4/04/06 4:00 PM	0603682-004C	3/30/06	3/31/06	4/04/06 11:04 PM
0603682-013C	3/30/06	3/31/06	4/04/06 11:53 PM	0603682-014C	3/30/06	3/31/06	4/05/06 12:42 AM
0603682-015B	3/30/06	3/31/06	4/05/06 1:30 AM	0603682-016C	3/30/06	3/31/06	4/05/06 2:19 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ; RPD =  $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer



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## QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0603682

EPA Method: E300.1		Extraction: E300.1			BatchID: 21010			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Bromide	N/A	1	N/A	N/A	N/A	112	112	0	N/A	85 - 115
%SS:	N/A	0.10	N/A	N/A	N/A	94	95	1.01	N/A	90 - 115

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 21010 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603682-002C	3/30/06	3/31/06	4/03/06 4:40 PM	0603682-004C		3/30/06	3/31/06 4/03/06 5:19 AM
0603682-013C	3/30/06	3/31/06	4/03/06 5:57 PM	0603682-014C		3/30/06	3/31/06 4/03/06 6:36 PM
0603682-015B	3/30/06	3/31/06	4/03/06 7:15 AM	0603682-016C		3/30/06	3/31/06 4/03/06 7:53 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ; RPD =  $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

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## QC SUMMARY REPORT FOR E218.6

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0603682

EPA Method: E218.6		Extraction: E218.6			BatchID: 21028			Spiked Sample ID: 0603678-001a		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Hexachrome	ND	25	110	109	1.28	105	104	0.306	90 - 110	90 - 110

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 21028 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603682-002C	3/30/06	3/31/06	3/31/06 7:57 PM	0603682-004C	3/30/06	3/31/06	3/31/06 8:19 AM
0603682-013C	3/30/06	3/31/06	3/31/06 8:40 PM	0603682-014C	3/30/06	3/31/06	3/31/06 9:01 PM
0603682-015B	3/30/06	3/31/06	3/31/06 9:22 PM	0603682-016C	3/30/06	3/31/06	3/31/06 9:44 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer



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## QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0603682

EPA Method: E200.8		Extraction: E200.8		BatchID: 21039		Spiked Sample ID: 0603673-001F				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Molybdenum	1.9	10	109	101	5.96	93.8	95	1.33	75 - 125	85 - 115
Selenium	ND	10	118	100	16.4	92.2	93.1	0.982	75 - 125	85 - 115
Vanadium	ND	10	105	104	1.25	95	95.4	0.452	75 - 125	85 - 115
%SS:	119	750	123	123	0	98	99	0.772	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

### BATCH 21039 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603682-002D	3/30/06	3/31/06	4/01/06 2:56 AM	0603682-004D	3/30/06	3/31/06	4/01/06 3:04 AM
0603682-013D	3/30/06	3/31/06	4/01/06 3:12 AM	0603682-014D	3/30/06	3/31/06	4/01/06 3:19 AM
0603682-015C	3/30/06	3/31/06	4/01/06 3:27 AM	0603682-016D	3/30/06	3/31/06	4/01/06 3:58 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

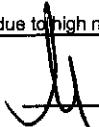
% Recovery =  $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$ ; RPD =  $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

 QA/QC Officer

**McCampbell Analytical, Inc.**

110 Second Avenue South, #D7

Pacheco, CA 94553-5560

(925) 798-1620



**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

Report to:

Chris Janiszewski  
Edd Clark & Associates, Inc.  
320 Professional Center Ste. 215  
Rohnert Park, CA 94928

5 days

Requested TAT:

Bill to:

Accounts Payable

Edd Clark & Associates, Inc.

320 Professional Center Ste.215

Rohnert Park, CA 94928

TEL: (707) 792-9500

FAX: (707) 792-9504

Projectno: #0302; Albion Shell

PO:

Date Received:

03/31/2006

Date Printed:

03/31/2006

WorkOrder: 0603682 ClientID: ECAR EDF: NO

Sample ID ClientSampleID Matrix Collection Date Hold

Requested Tests (See legend below)											
1	2	3	4	5	6	7	8	9	10	11	12

0603682-001	MW-1	Water	3/30/06 1:30:00 PM	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-002	MW-2	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-003	MW-5	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-004	MW-6	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-005	MW-7	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-006	MW-8	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-007	MW-9	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-008	MW-10	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-009	MW-11	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-010	MW-12	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-011	MW-13	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-012	MW-14	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-013	MW-15	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-014	MW-16	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D
0603682-015	MW-17	Water	3/30/06	<input type="checkbox"/>	C	C	C	A	B	D	D

Test Legend:

1	218_6_W
2	300_1_W
6	METALSMS_DISS
11	

2	300_1_W
7	PDISSOLVED
12	
13	

3	300_1SPE_W
8	

4	7-OXYS_W
9	

5	G-MBTEX_W
10	

Comments: GI#T0604500291

Prepared by: Melissa Valles

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

**McCampbell Analytical, Inc.**

110 Second Avenue South, #D7  
Pacheco, CA 94553-5560  
(925) 798-1620

**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

WorkOrder: 0603682

ClientID: ECAR

EDF: NO

## Report to:

Chris Janiszewski

Edd Clark & Associates, Inc.  
320 Professional Center Ste. 215  
Rohnert Park, CA 94928

TEL: (707) 792-9500  
FAX: (707) 792-9504  
ProjectNo: #0302; Albion Shell  
PO:

5 days

Requested TAT:

Bill to:

Accounts Payable

Edd Clark & Associates, Inc.  
320 Professional Center Ste.215  
Rohnert Park, CA 94928

5 days

Requested TAT:

Bill to:

Date Received:

Date Printed:

03/31/2006

06/29/2006

## Requested Tests (See legend below)

Sample ID	ClientSamplID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0603682-016	MW-18	Water	3/30/06		<input type="checkbox"/>											
0603682-017	DW-1	Water	3/30/06		<input type="checkbox"/>											
0603682-018	DP	Water	3/30/06		<input type="checkbox"/>											
0603682-019	SW-1	Water	3/30/06		<input type="checkbox"/>											
0603682-020	SW-4	Water	3/30/06		<input type="checkbox"/>											

## Test Legend:

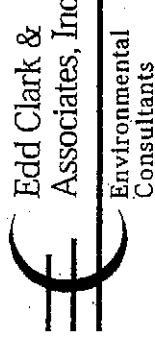
1	218_6_W	2	300_1_W	3	300_1SPE_W	4	7-OXYS_W	5	G-MBTEX_W
6	METALSMS_DISS	7	PRODISSOLVED	8	PREDF REPORT	9		10	
11		12							

Comments: GI#T0604500291

Prepared by: Melissa Valles

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.





## Chain of Custody Report

P.O. Box 3039, Rohnert Park, CA 94927  
 Tel: (707) 792-9500 (800) 474-1448 Fax: (707) 792-9504

Samplers Signature: Chris Janiszewski

E-mail in EDF for Upload to Geotracker:	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Initials <u>CJ</u>	

Analysis							Remarks	
Facility Name & Location:			Sample ID (depth)				# of Items	
Field Point Name	Date	Time	Sample Type	Media	Sample ID (depth)	Media	Items	
(+) MW-13	3/16/06	230		W	3	X	X	
(+) MW-14		200			1	3	X	
(+) MW-15		330				3/2	X	X
(+) MW-16		320				3/2	X	X
(+) MW-17		210				3/2	X	X
(+) MW-18		310				3/2	X	X
(+) DW		335				3	X	X
(+) DP		345				3	X	
(+) SW-1		225				3	X	
(+) SW-4		205				3	X	
Relinquished by:			Date:	Time:	Received by:	Relinquished by:	Date:	Time:
<u>John</u>			3/16/06	1050	<u>John</u>	<u>John</u>	3/16/06	200
Relinquished by:			Date:	Time:	Received by:	Relinquished by:	Date:	Time: